

Drawn from Nature by A. Wilson

Engraved by A. Lawson

1 Slate-coloured Hawk. 2 Ground Dove. 3 Female.

AMERICAN ORNITHOLOGY;

OR,

THE NATURAL HISTORY

OF THE

BIRDS OF THE UNITED STATES.

ILLUSTRATED WITH PLATES

Engraved and Colored from Original Drawings taken from Nature.

BY ALEXANDER WILSON.

VOL. VI.

PHILADELPHIA:

PUBLISHED BY BRADFORD AND INSKEEP.

PRINTED BY ROBERT AND WILLIAM CARR.

.....
1812.

f Q L
681
W 74
1808
v. 6
c. 1
SEN 100

PREFACE.

HAVING at length collected, drawn and described all the Land Birds of the United States with which I am acquainted, a very few excepted, which will appear in the succeeding volume, or in the appendix, as good specimens of them can be obtained, I now present the reader with a list of the whole, arranged in systematic order, with references to the pages of this work where the history of each is detailed. The blanks unavoidably left for the few unpublished ones, may be filled up hereafter with the pen or pencil. Those printed in italics are new species not heretofore figured or described.

LIST

OF THE

LAND BIRDS OF THE UNITED STATES,

WITH THEIR GENERIC CHARACTERS, ACCORDING TO THE ARRANGEMENT OF LATHAM.

VULTURES.

VOL. PAGE

Bill straight, hooked at the point; head bare of feathers, with a naked skin in front; tongue cleft; neck retractile.

Turkey Vulture, or Turkey Buzzard, (*Vultur aura*) .

Black Vulture, or Carrion Crow, (*V. atratus*) .

VOL. VI.

a

FALCONS.

	VOL.	PAGE
Bill hooked, the base covered with a cere; head covered with close-set feathers; tongue bifid.		
White-headed Eagle, (<i>Falco leucocephalus</i>)	iv.	89
Sea Eagle, (<i>F. ossifragus</i>)	vii.	
Ring-tailed E. (<i>F. fulvus</i>)	vii.	
Fish-Hawk, (<i>F. haliætos</i>)	v.	13
Red-tailed H. (<i>F. borealis</i>)	vi.	75
American Buzzard, (<i>F. leverianus?</i>)	vi.	78
Ash-colored Hawk, (<i>F. atricapillus</i>)	vi.	80
Winter H. (<i>F. hyemalis</i>)	iv.	73
Rough-legged H. (<i>F. lagopus</i>)	iv.	59
Marsh H. (<i>F. uliginosus</i>)	vi.	67
Swallow-tailed H. (<i>F. furcatus</i>)	vi.	70
Mississippi Kite, (<i>F. Mississippensis</i>)	iii.	80
Black Hawk, (<i>F. niger</i>)	vi.	82
<i>Variety of ditto.</i>	vi.	84
Red-shouldered H. (<i>F. lineatus</i>)	vi.	86
Sharp-shinned H. (<i>F. velox</i>)	v.	116
American Sparrow H. (<i>F. sparverius</i>)	ii.	117
Male of ditto.	iv.	57
Pigeon H. (<i>F. columbarius</i>)	ii.	107
Slate-colored H. (<i>F. Pennsylvanicus</i>)	vi.	13
Broad-winged H.	vi.	92

OWLS.

Bill hooked; nostrils oblong, covered with recumbent feathers; head, auricles and eyes large; tongue bifid.

Snow Owl, (<i>Strix nyctea</i>)	iv.	53
Great horned O. (<i>S. Virginiana</i>)	vi.	52

GENERAL INDEX.

vii

	VOL.	PAGE
Long-eared O. (<i>S. otus</i>)	vi.	73
Barred O. (<i>S. nebulosa</i>)	iv.	61
Mottled O. (<i>S. nœvia</i>)	iii.	17
Barn O. (<i>S. flammea</i>)	vi.	57
Little O. (<i>S. passerina</i>)	iv.	66
Hawk O. (<i>S. Hudsonia</i>)	vi.	64
Short-eared O. (<i>S. brachyotos</i>)	iv.	64
Red O. (<i>S. Asio</i>)	v.	83

SHRIKES, OR BUTCHER BIRDS.

Bill straightish, with a tooth on each mandible near the end; upper one overhanging the lower at the extremity; nostrils covered with stiff bristles.

Great American Shrike, (<i>Lanius excubitor</i>)	i.	74
Loggerhead S. (<i>L. Carolinensis</i>)	iii.	57

PARROT.

Bill hooked; upper mandible moveable, mostly covered with a cere; nostrils rounded, placed in the base of the bill; tongue fleshy, obtuse, entire; feet climbers.

Carolina Parrot, (<i>Psittacus Carolinensis</i>)	iii.	89
--	------	----

CROWS.

Bill convex, sharp-edged; nostrils covered with setaceous recumbent feathers; tongue cartilaginous, bifid; feet walkers.

Raven, (<i>Corvus corax</i>)		
Common Crow, (<i>C. corone</i>)	iv.	79
Crested C. or Blue Jay, (<i>C. cristatus</i>)	i.	11
Canada Jay, (<i>C. Canadensis</i>)	iii.	33

	VOL.	PAGE
<i>Clark's Crow</i> , (<i>C. Columbianus</i>)	iii.	29
<i>Fish C.</i> (<i>C. ossifragus</i>)	v.	27
<i>Magpie</i> , (<i>C. pica</i>)	iv.	75

ORIOLES.

Bill conic, convex, very sharp and straight; upper mandible a little longer, slightly notched; tongue bifid, sharp-pointed; feet formed for walking.

Baltimore Oriole, or Hanging-bird, (<i>Oriolus Baltimorus</i>)	i.	23
Female of ditto.	vi.	88
Orchard O. (<i>O. mutatus</i>)	i.	64

GRAKLES.

Bill thick, convex, sharp-edged, compressed at the sides, naked at the base; tongue entire, sharpish, fleshy.

Boat-tailed Grakle, (<i>Gracula barita</i>)		
Purple G. (<i>G. quiscula</i>)	iii.	44
Rusty G. (<i>G. ferruginea</i>)	iii.	41

CUCKOOS.

Bill smooth, a little curved; nostrils surrounded by a small rim; tongue short, arrow-pointed; feet formed for climbing.

Yellow-billed Cuckoo, (<i>Cuculus Carolinensis</i>)	iv.	13
<i>Black-billed C.</i> (<i>C. erythroptalma</i>)	iv.	16

WOODPECKERS.

Bill angular, straight, wedged at the tip; nostrils covered with recumbent setaceous feathers; tongue round,

GENERAL INDEX.

ix

worm-shaped, very long, bony, missile, daggered, beset at the point with bristles bent back; tail feathers ten, hard, rigid, pointed; feet climbers.

	VOL.	PAGE
Ivory-billed Woodpecker, (<i>Picus principalis</i>)	iv.	20
Pileated W. (<i>P. pileatus</i>)	iv.	27
Gold-winged W. (<i>P. auratus</i>)	i.	45
Red-headed W. (<i>P. erythrocephalus</i>)	i.	142
Hairy W. (<i>P. villosus</i>)	i.	150
Downy W. (<i>P. pubescens</i>)	i.	153
Yellow-bellied W. (<i>P. varius</i>)	i.	147
Red-cockaded W. (<i>P. querulus</i>)	iv.	103
Lewis's W. (<i>P. torquatus</i>)	iii.	31
Red-bellied W. (<i>P. Carolinus</i>)	i.	113
Greater Spotted W. (<i>P. major</i>)		

NUTHATCHES.

Bill subulate, roundish, straight, entire; upper mandible a little longer, compressed and angular at the tip; tongue jagged, short, horny at the tip; nostrils small, covered with bristles; feet formed for walking; hind toe long.

White-breasted Nuthatch, (<i>Sitta Carolinensis</i>)	i.	40
Red-bellied N. (<i>S. varia</i>)	i.	43
Brown-headed N. (<i>S. pusilla</i>)	ii.	105

KINGSFISHER.

Bill triangular, thick, straight, long, pointed; tongue fleshy, very short, flat, pointed; feet (in most) gressorial.

Belted Kingfisher, (<i>Alcedo alcyon</i>)	iii.	59
---	------	----

GENERAL INDEX.

CREEPERS.

	VOL.	PAGE
Bill arched, slender, somewhat triangular, pointed; tongue various, generally pointed; feet formed for walking.		
Brown Creeper, (<i>Certhia familiaris</i>)	i.	122
Black and white C. (<i>C. maculata</i>)	iii.	23
Great Carolina Wren, (<i>C. Caroliniana</i>)	ii.	61
<i>Marsh Wren</i> , (<i>C. palustris</i>)	iii.	58

HUMMING BIRD.

Bill subulate, filiform, tubular at the tip, longer than the head, upper mandible sheathing the lower; tongue filiform, the two threads coalescing, tubular; feet formed for walking.

Ruby-throated Humming-bird, (<i>Trochilus colubris</i>)	ii.	26
---	-----	----

STARLING.

Bill subulate, angular, depressed, bluntish; the upper mandible entire, somewhat open at the edges; nostrils surrounded with a prominent rim; tongue notched, pointed.

Red-winged Starling, (<i>Sturnus prædatorius</i>)	iv.	30
---	-----	----

THRUSHES.

Bill straightish, the upper mandible a little bending and notched near the point; nostrils naked, or half covered with a small membrane; mouth ciliate, with a few bristles at the corners; tongue jagged.

GENERAL INDEX.

xi

	VOL.	PAGE
Mocking-bird, (<i>Turdus polyglottos</i>)	ii.	13
Ferruginous Thrush, (<i>T. rufus</i>)	ii.	83
Wood Thrush, (<i>T. melodus</i>)	i.	29
Golden-crowned Th. (<i>T. aurocapillus</i>)	ii.	88
Cat Th. (<i>T. lividus</i>)	ii.	90
Water Th. (<i>T. aquaticus</i>)	iii.	66
Hermit Th. (<i>T. solitarius</i>)	v.	95
Tawny Th. (<i>T. mustelinus</i>)	v.	98
Red-breasted Th. (<i>T. migratorius</i>)	i.	35

CHATTERER.

Bill straight, convex, sub-incurved, each mandible notched; nostrils covered with bristles; tongue sharp, cartilaginous, bifid; middle toe connected at the base to the outmost.

Cedar Bird, (<i>Ampellis Americana</i>)	i.	107
---	----	-----

GROSBEAKS.

Bill strong, thick, convex; rounded at the base; lower mandible bent in at the edge; nostrils small, round, placed at the base of the bill; tongue truncated.

Cardinal Grosbeak, (<i>Loxia cardinalis</i>)	ii.	38
Rose-breasted Gr. (<i>L. ludoviciana</i>)	ii.	135
Blue Gr. (<i>L. cærulea</i>)	iii.	78
Pine Gr. (<i>L. ennucleator</i>)	i.	80

CROSSBILLS.

Bill strong, thick, convex, the mandibles elongated, crossing each other, and compressed towards their extremities.

GENERAL INDEX.

	VOL.	PAGE
American Crossbill, (<i>Curvirostra Americana</i>)	iv.	44
White-winged C. (<i>C. leucoptera</i>)	iv.	48

BUNTINGS.

Bill conic, mandibles receding from each other from the base downwards; the lower with the sides narrowed in, the upper with a hard knob within.

Black-throated Bunting, (<i>Emberiza Americana</i>)	i.	54
Towhee B. (<i>E. erythroptalma</i>)	ii.	35
Rice B. (<i>E. oryzivora</i>)	ii.	48
Cow B. (<i>E. pecoris</i>)	ii.	145
Snow B. (<i>E. nivalis</i>)	iii.	36
Painted B. (<i>E. ciris</i>)	iii.	68
White-crowned B. (<i>E. leucocephala</i>)	iv.	49
Bay-winged B. (<i>E. graminea</i>)	iv.	51

TANAGERS.

Bill conic, pointed, notched, almost triangular at the base, a little inclining at the tip.

Scarlet Tanager, (<i>Tanagra rubra</i>)	ii.	42
Summer Red-bird, (<i>T. æstiva</i>)	i.	75
Louisiana Tanager, (<i>T. ludoviciana</i>)	iii.	27

FINCHES.

Bill conic, straight, pointed.

Yellow-bird, or Goldfinch, (<i>Fringilla tristis</i>)	i.	20
Purple Finch, (<i>F. purpurea</i>)	i.	119
<i>Young of ditto.</i>	v.	87
Field Sparrow, (<i>F. pusilla</i>)	ii.	121
Tree Sp. (<i>F. arborea</i>)	ii.	123

GENERAL INDEX.

xiii

	VOL.	PAGE
<i>Song Sparrow</i> , (<i>F. melodia</i>)	ii.	125
<i>Chipping Sp.</i> (<i>F. socialis</i>)	ii.	127
<i>Snow-bird</i> , (<i>F. Hudsonia</i>)	ii.	129
<i>Pine Finch</i> , (<i>F. pinus</i>)	ii.	133
<i>White-throated Sp.</i> (<i>F. albicollis</i>)	iii.	51
<i>Swamp Sp.</i> (<i>F. palustris</i>)	iii.	49
<i>Sea-side Finch</i> , (<i>F. maritima</i>)	iv.	68
<i>Sharp-tailed F.</i> (<i>F. caudacuta</i>)	iv.	76
<i>Savanna Sp.</i> (<i>F. Savanna</i>)	iv.	72
<i>Female of ditto.</i>	iii.	55
<i>Fox-colored Sp.</i> (<i>F. ferruginea</i>)	iii.	53
<i>Lesser Red-poll</i> , (<i>F. linaria</i>)	iv.	42
<i>Yellow-winged Sp.</i> (<i>F. passerina</i>)	iii.	76
<i>Indigo-bird</i> , (<i>F. cyanea</i>)	i.	100

FLYCATCHERS.

Bill nearly triangular, notched, each side bent in at the tip, and beset with bristles at the root; toes (mostly) divided to their origin.

<i>Solitary Flycatcher</i> , (<i>Muscicapa solitaria</i>)	ii.	143
<i>American Redstart</i> , (<i>M. ruticilla</i>)	i.	103
<i>Young of ditto.</i>	v.	119
<i>Red-eyed Fl.</i> (<i>M. olivacea</i>)	ii.	55
<i>Tyrant Fl.</i> (<i>M. tyrannus</i>)	ii.	66
<i>Great crested Fl.</i> (<i>M. crinita</i>)	ii.	75
<i>Small green Fl.</i> (<i>M. querula</i>)	ii.	77
<i>Pewee Fl.</i> (<i>M. nunciola</i>)	ii.	78
<i>Wood-pewee Fl.</i> (<i>M. rapax</i>)	ii.	81
<i>Yellow-throated Fl.</i> (<i>M. sylvicola</i>)	i.	117
<i>Blue-grey Fl.</i> (<i>M. cærulea</i>)	ii.	164
<i>White-eyed Fl.</i> (<i>M. cantatrix</i>)	ii.	166

	VOL.	PAGE
Canada Fl. (<i>M. Canadensis</i>)	iii.	100
Hooded Fl. (<i>M. cucullata</i>)	iii.	101
Warbling Fl. (<i>M. melodia</i>)	v.	85
Green black-capt Fl. (<i>M. pusilla</i>)	iii.	103

LARKS.

Bill cylindrical, subulate, straight, the mandibles equal and a little gaping at the base; tongue bifid; hind claw straightish, longer than the toe.

Meadow Lark, (<i>Alauda magna</i>)	iii.	20
Shore L. (<i>A. alpestris</i>)	i.	85
Brown L. (<i>A. rufa</i>)	v.	89

WARBLERS.

Bill subulate, straight, the mandibles nearly equal, nostrils obovate, tongue lacerate at the end.

Blue-bird, (<i>Sylvia sialis</i>)	i.	56
Ruby-crowned Wren, (<i>S. calendula</i>)	i.	83
Maryland Yellow-throat, (<i>S. Marylandica</i>)	i.	88
Female of ditto.	ii.	163
Golden-crested Wren, (<i>S. regulus</i>)	i.	126
House W. (<i>S. domestica</i>)	i.	129
Winter W. (<i>S. troglodytes?</i>)	i.	139
Yellow-throat Warbler, (<i>S. flavicollis</i>)	ii.	64
Bay-breasted W.	ii.	97
Chesnut-sided W. (<i>S. Pennsylvanica</i>)	ii.	99
Mourning W. (<i>S. Philadelphia</i>)	ii.	101
Blue-winged Yellow W. (<i>S. solitaria</i>)	ii.	109
Golden-winged W. (<i>S. chrysoptera</i>)	ii.	113
Blue-eyed W. (<i>S. citrinella</i>)	ii.	111

GENERAL INDEX.

XV

	VOL.	PAGE
Black-throated Blue W. (<i>S. Canadensis</i>)	ii.	115
Black-throated Green W. (<i>S. virens</i>)	ii.	137
Yellow-rump W. (<i>S. coronata</i>)	ii.	138
Ditto, in its winter dress	v.	121
<i>Cærulean W.</i> (<i>S. cærulea</i>)	ii.	141
Pine-creeping W. (<i>S. pinus</i>)	iii.	25
<i>Black and Yellow W.</i> (<i>S. magnolia</i>)	iii.	63
Blackburnian W. (<i>S. Blackburniæ</i>)	iii.	64
<i>Autumnal W.</i> (<i>S. autumnalis</i>)	iii.	65
Prothonotary W. (<i>S. protonotarius</i>)	iii.	72
Worm-eating W. (<i>S. vermivora</i>)	iii.	74
<i>Tennessee W.</i> (<i>S. peregrina</i>)	iii.	83
<i>Kentucky W.</i> (<i>S. formosa</i>)	iii.	84
<i>Blue-green W.</i> (<i>S. rara</i>)	iii.	119
<i>Nashville W.</i> (<i>S. rubricapilla</i>)	iii.	120
Blue Yellow-back W. (<i>S. pusilla</i>)	iv.	17
Yellow Red-poll W. (<i>S. petechia</i>)	iv.	19
Black-poll W. (<i>S. striata</i>)	iv.	40
<i>Female of ditto.</i>	vi.	101
<i>Prairie W.</i> (<i>S. minuta</i>)	iii.	87
<i>Connecticut W.</i> (<i>S. agilis</i>)	v.	64
<i>Blue-mountain W.</i> (<i>S. montana</i>)	v.	113
<i>Hemlock W.</i> (<i>S. parus</i>)	v.	114
<i>Pine-swamp W.</i> (<i>S. leucoptera</i>)	v.	100
<i>Cape May W.</i> (<i>S. maritima</i>)	vi.	99

MANNAKIN.

Bill shorter than the head, strong, hard, nearly triangular at the base, and slightly incurved at the tip; nostrils naked; feet gressorial; tail short.

Yellow-breasted Chat, (<i>Pipra polyglotta</i>)	i.	90
---	----	----

TITMOUSE.

Bill very entire, narrow, sub-compressed, strong, hard, pointed, and covered at the base with bristles; tongue truncate, bristly at the end; toes divided to the origin, the hind one large and strong.

	VOL.	PAGE
Black-capt Titmouse, (<i>Parus atricapillus</i>)	i.	134
Crested T. (<i>P. bicolor</i>)	i.	137

SWALLOWS.

Bill small, weak, curved, subulate, depressed at the base; gape larger than the head; tongue short, broad, cleft; wings long; tail mostly forked.

Purple Martin, (<i>Hirundo purpurea</i>)	v.	58
Barn Swallow, (<i>H. Americana</i>)	v.	34
Green White-bellied S. (<i>H. viridis</i>)	v.	44
Bank S. (<i>H. riparia</i>)	v.	46
Chimney S. (<i>H. pelagica</i>)	v.	48

GOATSUCKERS.

Bill slightly curved, very small, subulate and depressed at the base; mouth extremely wide, and furnished at the sides with a series of bristles; ears very large; tongue pointed, entire; feathers of the tail ten; legs short; middle claw pectinated.

Chuck-will's-widow, (<i>Caprimulgus Carolinensis</i>)	vi.	95
Night Hawk, (<i>C. Americanus</i>)	v.	65
Whip-poor-will, (<i>C. vociferus</i>)	v.	71

PIGEONS.

Bill straight, conic, pointed, descending towards the tip; nostrils oblong, oval, pervious, half covered with a soft tumid membrane.

	VOL.	PAGE
Passenger Pigeon, (<i>Columba migratoria</i>)	v.	102
Carolina P. (<i>C. Carolinensis</i>)	v.	91
Ground Dove, (<i>C. passerina</i>)	vi.	15

TURKEY.

Bill conic, incurvate; head covered with spongy caruncles; chin with a longitudinal membranaceous caruncle; tail broad, expansile; legs spurred.

Wild Turkey, (<i>Meleagris gallipavo</i>)		
---	--	--

GROUS.

Bill strong, short, convex; spot over the eyes naked; legs downy.

Ruffed Grouse, (<i>Tetrao umbellus</i>)	vi.	45
Pinnated G. (<i>T. cupido</i>)	iii.	104

PARTRIDGE.

Bill short; eyebrows covered with feathers; tail short; nostrils covered above with a prominent callous edge.

Virginian Partridge, or Quail, (<i>Perdix Virginianus</i>)	vi.	21
--	-----	----

The foregoing numerous assemblage forms the *first* grand division of our Ornithology; the second and last is composed of the

Waders and Web-footed, a vast and various multitude, subsisting chiefly on the bounty of the ocean, and the gleanings of our rivers, lakes and marshes. These will be introduced to the particular acquaintance of the reader in the succeeding volumes of this work.

Hitherto the good wishes of his friends, and the distinguished approbation of his beloved country have accompanied the author in his humble endeavours to do justice to this portion of its natural history. Deeply sensible of this goodness, he will only say, that in what still remains to be done, it will be his constant aim so to execute it, as not to disappoint expectation.

ALEXANDER WILSON.

Philadelphia, August 12th, 1812.

INDEX

TO THE SIXTH VOLUME.

	PAGE
American Buzzard <i>Falco leverianus?</i>	78
Ash-colored Hawk <i>Falco atricapillus</i>	80
Baltimore Oriole (<i>female</i>) <i>Oriolus Baltimorus</i>	88
Barn Owl <i>Strix flammea</i>	57
Black Hawk <i>Falco niger</i>	82
Variety of ditto.	84
Black-poll Warbler (<i>female</i>) <i>Sylvia striata</i>	101
Broad-winged Hawk <i>Falco Pennsylvanicus</i>	92
Cape-May Warbler <i>Sylvia maritima</i>	99
Chuck-will's-widow <i>Caprimulgus Carolinensis</i>	95
Great-horned Owl <i>Strix Virginiana</i>	52
Ground Dove (<i>male and female</i>) <i>Columba passerina</i>	15
Hawk Owl <i>Strix Hudsonia</i>	64
Long-eared Owl <i>Strix otus</i>	73
Marsh Hawk <i>Falco uliginosus</i>	67
Partridge, or Quail <i>Tetrao Virginianus</i>	21
Rail <i>Rallus Virginianus</i>	27

		PAGE
Red-shouldered Hawk	<i>Falco lineatus</i>	86
Red-tailed Hawk	<i>Falco borealis</i>	75
Ruffed Grouse	<i>Tetrao umbellus</i>	45
Slate-colored Hawk	<i>Falco Pennsylvanicus</i>	13
Small-headed Flycatcher,	<i>Muscicapa minuta</i>	62
Snipe	<i>Scolopax gallinago</i>	18
Swallow-tailed Hawk	<i>Falco furcatus</i>	70
Towhee Bunting (<i>female</i>)	<i>Emberiza erythroptalma</i>	90
Woodcock	<i>Scolopax minor</i>	40

AMERICAN ORNITHOLOGY.

SLATE-COLORED HAWK.

FALCO PENNSYLVANICUS.

[Plate XLVI.—Fig. 1.]

THIS elegant and spirited little Hawk is a native of Pennsylvania, and of the Atlantic states generally; and is now for the first time introduced to the notice of the public. It frequents the more settled parts of the country, chiefly in winter; is at all times a scarce species; flies wide, very irregular, and swiftly; preys on lizards, mice and small birds, and is an active and daring little hunter. It is drawn of full size, from a very beautiful specimen shot in the neighbourhood of Philadelphia. The bird within his grasp is the *Tanagra rubra*, or Black-winged Red bird, in its green or first year's dress. In the spring of the succeeding year the green and yellow plumage of this bird becomes of a most splendid scarlet, and the wings and tail deepen into a glossy black. For a particular account of this Tanager see vol. II, p. 42, of the present work.

The great difficulty of accurately discriminating between different species of the Hawk tribe, on account of the various appearances they assume at different periods of their long lives, at first excited a suspicion that this might be one of those with which I was already acquainted, in a different dress, namely, the Sharp-shinned Hawk figured in the last plate of the fifth volume of this work; for such are the changes of color to which many individuals of this genus are subject, that unless the naturalist has recourse to

those parts that are subject to little or no alteration in the full-grown bird, *viz.* the particular conformation of the legs, nostril, tail, and the relative length of the latter to that of the wings, also the peculiar character of the countenance, he will frequently be deceived. By comparing these, the same species may often be detected under a very different garb. Were all these changes accurately known, there is no doubt but the number of species of this tribe, at present enumerated, would be greatly diminished; the same bird having been described by certain writers three, four, and even five different times as so many distinct species. Testing, however, the present Hawk by the rules above-mentioned, I have no hesitation in considering it as a species different from any hitherto described; and I have classed it accordingly.

The Slate-colored Hawk is eleven inches long, and twenty-one inches in extent; bill blue black; cere and sides of the mouth dull green; eye-lid yellow; eye deep sunk under the projecting eyebrow, and of a fiery orange color; upper parts of a fine slate; primaries brown black, and, as well as the secondaries, barred with dusky; scapulars spotted with white and brown, which is not seen unless the plumage be separated by the hand; all the feathers above are shafted with black; tail very slightly forked, of an ash color, faintly tinged with brown, crossed with four broad bands of black, and tipped with white; tail three inches longer than the wings; over the eye extends a streak of dull white; chin white mixed with fine black hairs; breast and belly beautifully variegated with ferruginous and transverse spots of white; femorals the same; vent pure white; legs long, very slender, and of a rich orange yellow; claws black, large and remarkably sharp; lining of the wing thickly marked with heart-shaped spots of black. This bird on dissection was found to be a male. In the month of February I shot another individual of this species, near Hampton in Virginia, which agreed almost exactly with the present.

DSI

GROUND DOVE.

COLUMBA PASSERINA.[Plate XLVI.—Fig. 2, *Male*—Fig. 3, *Female*.]

LINN. *Syst.* 285.—SLOAN. *Jam.* II. 305.—*Le Cocotzin, Fernandez, 24.*—BUFF. II, 559. *Pl. enl.* 243.—
La petite Tourtelle, BRISS. II, 113.—TURT. *Syst.* 478.—*Columba minuta, Ibid.* p. 479.—*Arct. Zool.*
 p. 328, *No.* 191.—CATESB. I, 26.

THIS is one of the least of the Pigeon tribe, whose timid and innocent appearance forms a very striking contrast to the ferocity of the Bird-killer of the same plate. Such as they are in nature, such I have endeavored faithfully to represent them. I have been the more particular with this minute species as no correct figure of it exists in any former work with which I am acquainted.

The Ground Dove is a native of North and South Carolina, Georgia, the new state of Louisiana, Florida, and the islands of the West Indies. In the latter it is frequently kept in cages; is esteemed excellent for the table, and honored by the French planters with the name of Ortolan. They are numerous in the sea islands on the coast of Carolina and Georgia; fly in flocks or coveys of fifteen or twenty; seldom visit the woods, preferring open fields and plantations; are almost constantly on the ground, and when disturbed fly to a short distance and again alight. They have a frequent jetting motion with the tail; feed on rice, various seeds and berries, particularly those of the Tooth-ache tree,* under or near which, in the proper season, they are almost sure to be found. Of their nest or manner of breeding I am unable, at present, to give any account.

* *Xanthoxylum Clava Herculis.*

These birds seem to be confined to the districts lying south of Virginia. They are plenty on the upper parts of Cape Fear river, and in the interior of Carolina and Georgia; but I have never met with them either in Maryland, Delaware or Pennsylvania. They never congregate in such multitudes as the common Wild Pigeon; or even as the Carolina Pigeon or Turtle Dove; but, like the Partridge or Quail, frequent the open fields in small coveys. They are easily tamed, have a low tender cooing note accompanied with the usual gesticulations of their tribe.

The Ground Dove is a bird of passage, retiring to the islands and to the more southerly parts of the continent on the approach of winter, and returning to its former haunts early in April. It is of a more slender and delicate form, and less able to bear the rigors of cold, than either of the other two species common in the United States, both of which are found in the northern regions of Canada, as well as in the genial climate of Florida.

The DOVE, generally speaking, has long been considered as the favorite emblem of peace and innocence, probably from the respectful manner in which its name is mentioned in various parts of Scripture; its being selected from among all the birds by Noah to ascertain the state of the deluge, and returning to the ark, bearing the olive leaf as a messenger of peace and good tidings; the Holy Ghost, it is also said, was seen to descend *like a dove* from heaven, &c. &c. In addition to these, there is in the Dove an appearance of meekness and innocency very interesting, and well calculated to secure our partiality in its favor. These remarks are applicable to the whole genus; but are more particularly so to the species now before us, as being among the least, the most delicate and inoffensive of the whole.

The Ground Dove is six inches and a quarter long; bill yellow, black at the point; nostril covered with a prominent membrane, as is usual with the genus; iris of the eye orange red; front, throat, breast and sides of the neck pale vinaceous purple; the fea-

thers strongly defined by semicircular outlines, those on the throat centered with dusky blue; crown and hind head a fine pale blue, intermixed with purple, the plumage like that on the throat strongly defined; back cinereous brown, the scapulars deeply tinged with pale purple, and marked with detached drops of glossy blue reflecting tints of purple; belly pale vinaceous brown, becoming dark cinereous towards the vent, where the feathers are bordered with white; wing quills dusky outwardly and at the tips; lower sides and whole interior vanes a fine red chesnut, which shews itself a little below their coverts; tail rounded, consisting of twelve feathers, the two middle ones cinereous brown, the rest black tipped and edged with white; legs and feet yellow.

The female has the back and tail coverts of a mouse color, with little or none of the vinaceous tint on the breast and throat, nor any of the light blue on the hind head; the throat is speckled with dull white, pale clay color and dusky; sides of the neck the same, the plumage strongly defined; breast cinereous brown, slightly tinted with purple; scapulars marked with large drops of a dark purplish blood color, reflecting tints of blue; rest of the plumage nearly the same as that of the male.

SNIPE.

SCOLOPAX GALLINAGO.

[Plate XLVII.—Fig. 1.]

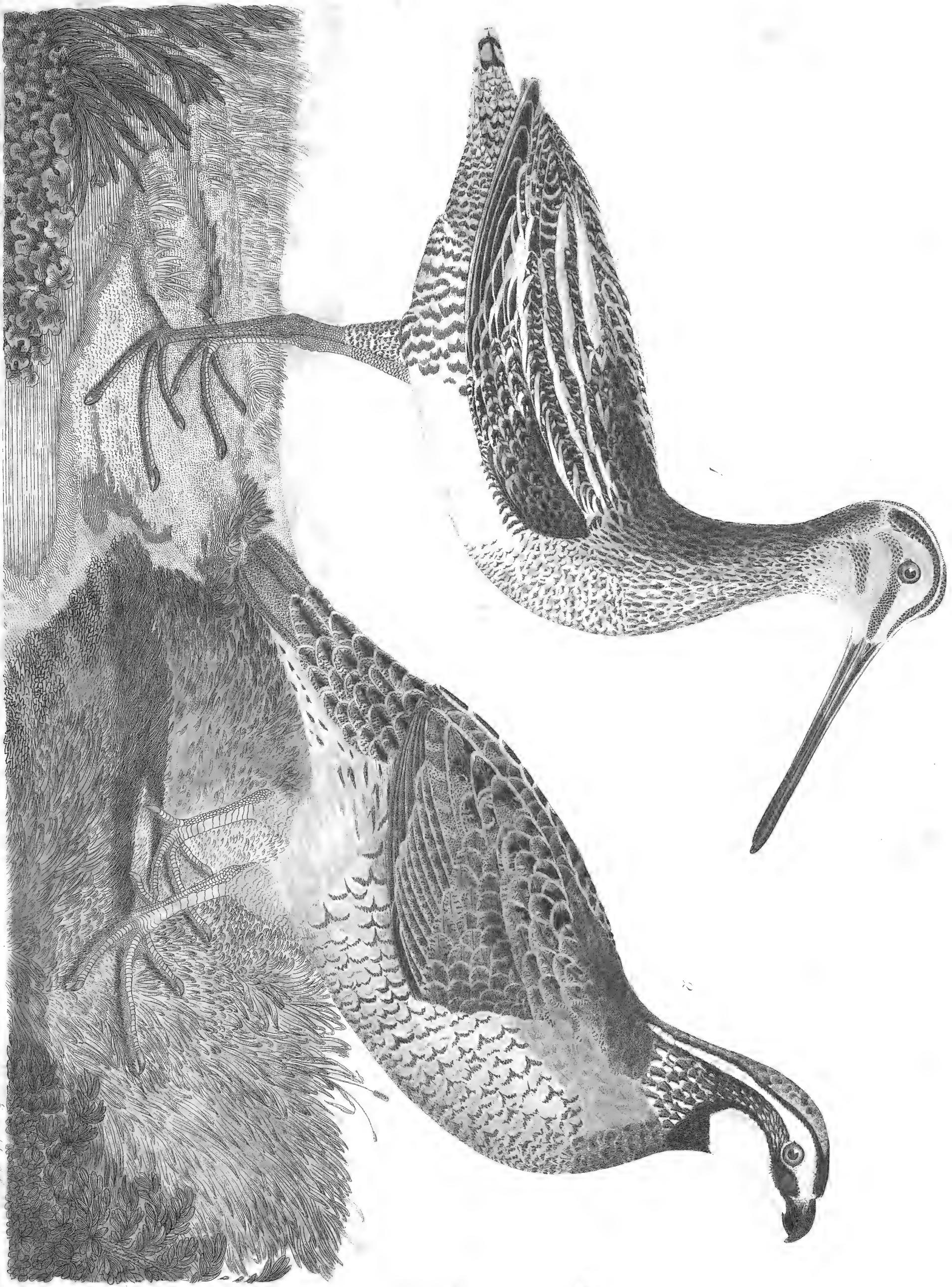
THIS bird is well known to our sportsmen; and, if not the same, has a very near resemblance to the common Snipe of Europe. It is usually known by the name of the *English Snipe*, to distinguish it from the Woodcock, and from several others of the same genus. It arrives in Pennsylvania about the tenth of March, and remains in the low grounds for several weeks; the greater part then move off to the north and to the higher inland districts to breed. A few are occasionally found and consequently breed in our low marshes during the summer. When they first arrive they are usually lean; but when in good order are accounted excellent eating. They are perhaps the most difficult to shoot of all our birds, as they fly in sudden zig-zag lines, and very rapidly. Great numbers of these birds winter on the rice grounds of the southern states, where in the month of February they appeared to be much tamer than they are usually here, as I frequently observed them running about among the springs and watery thickets. I was told by the inhabitants that they generally disappeared early in the spring. On the twentieth of March I found these birds extremely numerous on the borders of the ponds near Louisville, Kentucky; and also in the neighbourhood of Lexington in the same state, as late as the tenth of April. I was told by several people that they are abundant in the Illinois country, up as far as lake Michigan. They are but seldom seen in Pennsylvania during the summer, but are occasionally met with in considerable numbers on their return in autumn, along the whole eastern side of the Alleghany from the sea to the mountains. They have the same soaring irregular flight in

From the works of Audubon

1. *Booby*

2. *Booby or Phalarope*

Engraved by J. Audubon





the air in gloomy weather as the Snipe of Europe; the same bleating note and occasional rapid descent; spring from the marshes with the like feeble *squeak*; and in every respect resemble the common Snipe of Britain, except in being about an inch less; and in having sixteen feathers in the tail instead of fourteen, the number said by Bewick to be in that of Europe. From these circumstances we must either conclude this to be a different species, or partially changed by difference of climate; the former appears to me the most probable opinion of the two.

These birds abound in the meadows and low grounds along our large rivers, particularly those that border the Schuylkill and Delaware, from the tenth of March to the middle of April, and sometimes later, and are eagerly sought after by many of our gunners. The nature of the grounds, however, which these birds frequent, the coldness of the season, and peculiar shyness and agility of the game, render this amusement attractive only to the most dexterous, active and eager of our sportsmen.

The Snipe is eleven inches long, and seventeen inches in extent; the bill is more than two inches and a half long, fluted lengthways, of a brown color, and black towards the tip, where it is very smooth while the bird is alive, but soon after it is killed becomes dimpled like the end of a thimble; crown black, divided by an irregular line of pale brown; another broader one of the same tint passes over each eye; from the bill to the eye there is a narrow dusky line; neck and upper part of the breast pale brown, variegated with touches of white and dusky; chin pale; back and scapulars deep velvety black, the latter elegantly marbled with waving lines of ferruginous, and broadly edged exteriorly with white; wings plain dusky, all the feathers as well as those of the coverts tipped with white; shoulder of the wing deep dusky brown, exterior quill edged with white; tail coverts long, reaching within three quarters of an inch of the tip, and of a pale rust color spotted with black; tail rounded, deep black, ending in a bar of bright ferruginous crossed

with a narrow waving line of black, and tip with whitish; belly pure white; sides barred with dusky; legs and feet a very pale ashy green; sometimes the whole thighs and sides of the vent are barred with dusky and white as in the figure on the plate.

The female differs in being more obscure in her colors; the white on the back being less pure, and the black not so deep.

QUAIL, OR PARTRIDGE.

TETRAO VIRGINIANUS.

[Plate XLVII.—Fig. 2.]

Arch. Zool. 318, No. 185.—CATESB. *App.* p. 12.—*Virginian Quail*, TURT. *Syst.* p. 460.—*Maryland Q.*
Ibid.—*Le Perdrix d'Amerique*, BRISS. I, 231.—BUFF. II, 447.

THIS well known bird is a general inhabitant of North America, from the northern parts of Canada and Nova Scotia, in which latter place it is said to be migratory, to the extremity of the peninsula of Florida; and was seen in the neighbourhood of the Great Osage village, in the interior of Louisiana. They are numerous in Kentucky and Ohio; Mr. Pennant remarks that they have been lately introduced into the island of Jamaica, where they appear to thrive greatly, breeding in that warm climate twice in the year. Captain Henderson mentions them as being plenty near the Balize at the Bay of Honduras. They rarely frequent the forest, and are most numerous in the vicinity of well cultivated plantations where grain is in plenty. They, however, occasionally seek shelter in the woods, perching on the branches, or secreting among the brush wood; but are found most usually in open fields, or along fences sheltered by thickets of briars. Where they are not too much persecuted by the sportsmen, they become almost half domesticated; approach the barn, particularly in winter, and sometimes in that severe season mix with the poultry to glean up a subsistence. They remain with us the whole year, and often suffer extremely by long hard winters and deep snows. At such times the arts of man combine with the inclemency of the season for their destruction. To the ravages of the gun are added others of a more insidious kind. Traps are placed on almost every plan-

tation, in such places as they are known to frequent. These are formed of lath, or thinly split sticks, somewhat in the shape of an obtuse cone, laced together with cord, having a small hole at top, with a sliding lid, to take out the game by. This is supported by the common *figure 4* trigger, and grain is scattered below and leading to the place. By this contrivance ten or fifteen have sometimes been taken at a time. These are sometimes brought alive to market, and occasionally bought up by sportsmen, who, if the season be very severe, sometimes preserve and feed them till spring, when they are humanely turned out to their native fields again, to be put to death at some future time *secundem artem*. Between the months of August and March great numbers of these birds are brought to the market of Philadelphia, where they are sold from twelve to eighteen cents a-piece.

The Quail begins to build early in May. The nest is made on the ground, usually at the bottom of a thick tuft of grass that shelters and conceals it. The materials are leaves and fine dry grass in considerable quantity. It is well covered above, and an opening left on one side for entrance. The female lays from fifteen to twenty-four eggs, of a pure white without any spots. The time of incubation has been stated to me by various persons at four weeks, when the eggs were placed under the domestic hen. The young leave the nest as soon as they are freed from the shell, and are conducted about in search of food by the female; are guided by her voice, which at that time resembles the twittering of young chickens, and sheltered by her wings, in the same manner as those of the domestic fowl; but with all that secrecy and precaution for their safety which their helplessness and greater danger require. In this situation should the little timid family be unexpectedly surprised, the utmost alarm and consternation instantly prevail. The mother throws herself in the path, fluttering along, and beating the ground with her wings, as if sorely wounded; using every artifice she is master of to entice the passenger in pursuit of herself, uttering at

the same time certain peculiar notes of alarm well understood by the young, who dive separately amongst the grass, and secrete themselves till the danger is over; and the parent, having decoyed the pursuer to a safe distance, returns by a circuitous route to collect and lead them off. This well known manœuvre, which nine times in ten is successful, is honorable to the feelings and judgment of the bird, but a severe satire on man. The affectionate mother, as if sensible of the avaricious cruelty of his nature, tempts him with a larger prize, to save her more helpless offspring; and pays him, as avarice and cruelty ought always to be paid, with mortification and disappointment.

The eggs of the Quail have been frequently placed under the domestic hen, and hatched and reared with equal success as her own; tho, generally speaking, the young Partridges being more restless and vagrant, often lose themselves, and disappear. The hen ought to be a particular good nurse, not at all disposed to ramble, in which case they are very easily raised. Those that survive acquire all the familiarity of common chickens; and there is little doubt that if proper measures were taken, and persevered in for a few years, that they might be completely domesticated. They have been often kept during the first season, and through the whole of the winter, but have uniformly deserted in the spring. Two young partridges that were brought up by a hen, when abandoned by her, associated with the cows, which they regularly followed to the fields, returned with them when they came home in the evening, stood by them while they were milked, and again accompanied them to the pasture. These remained during the winter, lodging in the stable, but as soon as spring came they disappeared. Of this fact I was informed by a very respectable lady, by whom they were particularly observed.

It has been frequently asserted to me that the Quails lay occasionally in each other's nests. Tho I have never myself seen a case of this kind, I do not think it altogether improbable, from

the fact, that they have often been known to drop their eggs in the nest of the common hen, when that happened to be in the fields, or at a small distance from the house. The two Partridges above-mentioned were raised in this manner; and it was particularly remarked by the lady who gave me the information, that the hen sat for several days after her own eggs were hatched, until the young Quails made their appearance.

The Partridge, on her part, has sometimes been employed to hatch the eggs of the common domestic hen. A friend of mine, who himself made the experiment, informs me, that of several hen's eggs which he substituted in place of those of the Partridge, she brought out the whole; and that for several weeks he occasionally surprized her in various parts of the plantation with her brood of *chickens*; on which occasions she exhibited all that distressful alarm, and practised her usual manœuvres for their preservation. Even after they were considerably grown, and larger than the Partridge herself, she continued to lead them about; but tho their notes, or call, were those of common chickens, their manners had all the shyness, timidity and alarm of young Partridges; running with great rapidity, and squatting in the grass exactly in the manner of the Partridge. Soon after this they disappeared, having probably been destroyed by dogs, by the gun, or by birds of prey. Whether the domestic fowl might not by this method be very soon brought back to its original savage state, and thereby supply another additional subject for the amusement of the sportsman, will scarcely admit of a doubt. But the experiment, in order to secure its success, would require to be made in a quarter of the country less exposed than ours to the ravages of guns, traps, dogs, and the deep snows of winter, that the new tribe might have full time to become completely naturalized, and well fixed in all their native habits.

About the beginning of September, the Quails being now nearly full grown, and associated in flocks, or coveys, of from four

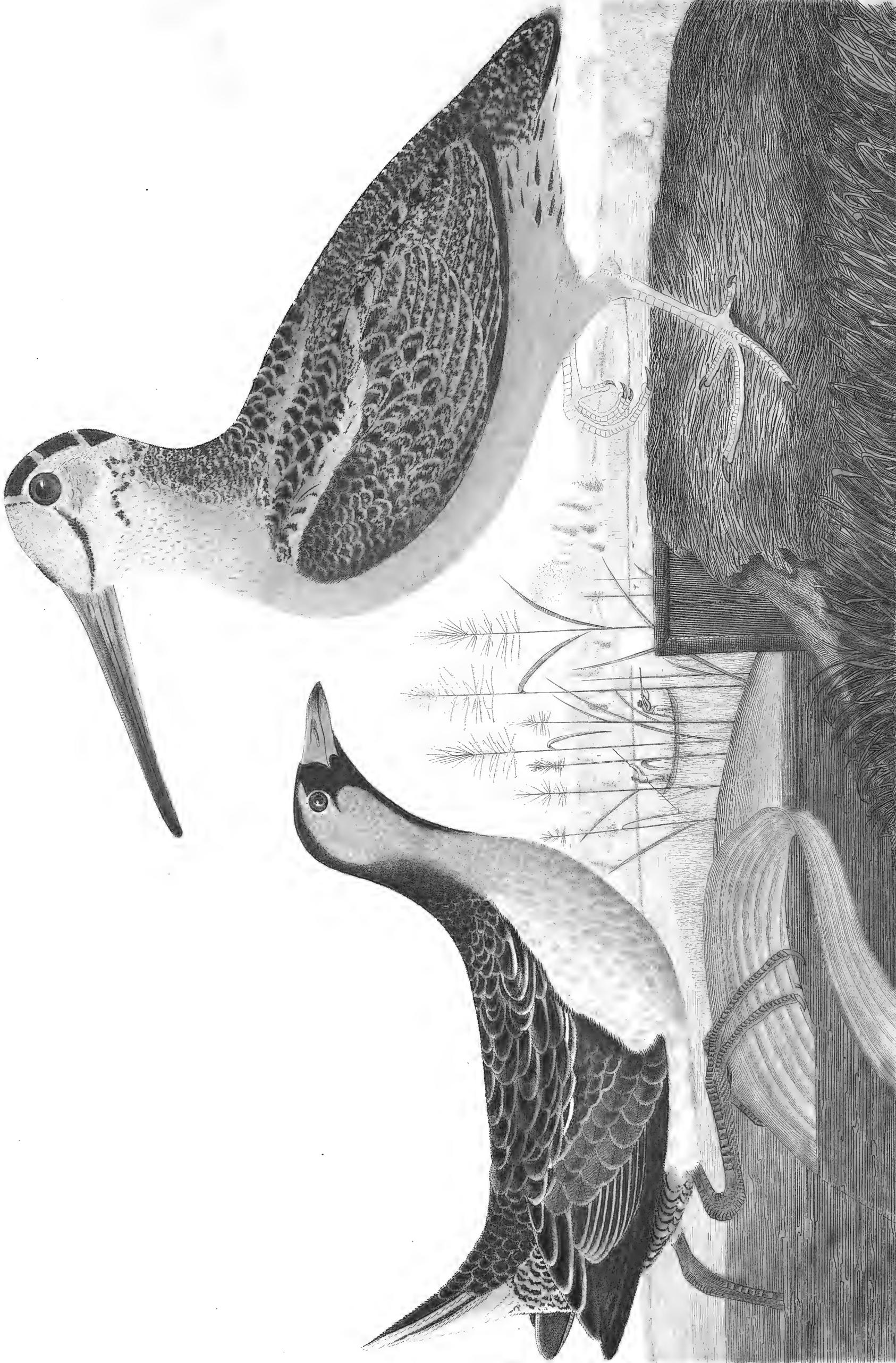
or five to thirty, afford considerable sport to the gunner. At this time the notes of the male are most frequent, clear and loud. His common call consists of two notes with sometimes an introductory one, and is similar to the sound produced by pronouncing the words "Bob White." This call may be easily imitated by whistling, so as to deceive the bird itself, and bring it near. While uttering this he is usually perched on a rail of the fence, or on a low limb of an apple tree, where he will sometimes sit, repeating at short intervals "*Bob White,*" for half an hour at a time. When a covey are assembled in a thicket or corner of a field and about to take wing, they make a low twittering sound, not unlike that of young chickens; and when the covey is dispersed, they are called together again by a loud and frequently repeated note, peculiarly expressive of tenderness and anxiety.

The food of the Partridge consists of grain, seeds, insects, and berries of various kinds. Buckwheat and Indian corn are particular favorites. In September and October the buckwheat fields afford them an abundant supply, as well as a secure shelter. They usually roost at night in the middle of a field on high ground; and from the circumstance of their dung being often found in such places in one round heap, it is generally conjectured that they roost in a circle with their heads outwards, each individual in this position forming a kind of guard to prevent surprize. They also continue to lodge for several nights in the same spot.

The Partridge, like all the rest of the gallinaceous order, flies with a loud whirring sound, occasioned by the shortness, concavity and rapid motion of its wings, and the comparative weight of its body. The steadiness of its horizontal flight, however, renders it no difficult mark to the sportsman, particularly when assisted by his sagacious pointer. The flesh of this bird is peculiarly white, tender and delicate, unequalled, in these qualities, by that of any other of its genus in the United States.

The *Quail*, as it is called in New England, or the *Partridge*, as in Pennsylvania, is nine inches long, and fourteen inches in extent; the bill is black; line over the eye, down the neck and whole chin pure white, bounded by a band of black which descends and spreads broadly over the throat; the eye is dark hazel; crown, neck and upper part of the breast red brown; sides of the neck spotted with white and black on a reddish brown ground; back, scapulars and lesser coverts red brown, intermixed with ash and sprinkled with black; tertials edged with yellowish white; wings plain dusky; lower part of the breast and belly pale yellowish white, beautifully marked with numerous curving spots or arrow heads of black; tail ash, sprinkled with reddish brown; legs very pale ash.

The female differs in having the chin and sides of the head yellowish brown, in which dress it has been described as a different kind. There is, however, only one species of Quail at present known within the United States.



Engraved by J. Sp. Harcourt

Woodcock

. Duck

Drawn from Nature by J. Wilson

RAIL.

RALLUS VIRGINIANUS.

[Plate XLVIII.—Fig. 1.]

Sorée, CATESB. I, 70.—*Arct. Zool.* p. 491, No. 409.—*Little American Water Hen*, EDW. 144.—*Le Râle de Virginie*, BUFF. VIII, 165.

OF all our land or water fowl perhaps none afford the sportsman more agreeable amusement, or a more delicious repast, than the little bird now before us. This amusement is indeed temporary, lasting only two or three hours in the day for four or five weeks in each year; but as it occurs in the most agreeable and temperate of our seasons, is attended with little or no fatigue to the gunner, and is frequently successful, it attracts numerous followers, and is pursued, in such places as the birds frequent, with great eagerness and enthusiasm.

The natural history of the *Rail*, or as it is called in Virginia the *Sora*, and in South Carolina the *Coot*, is to the most of our sportsmen involved in profound and inexplicable mystery. It comes, they know not whence; and goes, they know not where. No one can detect their first moment of arrival; yet all at once the reedy shores and grassy marshes of our large rivers swarm with them, thousands being sometimes found within the space of a few acres. These, when they do venture on wing, seem to fly so feebly, and in such short fluttering flights among the reeds, as to render it highly improbable to most people that they could possibly make their way over an extensive tract of country. Yet, on the first smart frost that occurs, the whole suddenly disappear as if they had never been.

To account for these extraordinary phenomena it has been supposed by some that they bury themselves in the mud; but as this is every year dug into by ditchers and people employed in repairing the banks, without any of those sleepers being found, where but a few weeks before these birds were innumerable, this theory has been generally abandoned. And here their researches into this mysterious matter generally end in the common exclamation of "What can become of them!" Some profound enquirers, however, not discouraged with these difficulties, have prosecuted their researches with more success; and one of those, living a few years ago near the mouth of James river in Virginia, where the Rail or Sora are extremely numerous, has (as I was informed on the spot) lately discovered that they change into frogs! having himself found in his meadows an animal of an extraordinary kind, that appeared to be neither a Sora nor a frog; but, as he expressed it, "something between the two." He carried it to his negroes, and afterwards took it home, where it lived three days; and in his own and his negroes' opinion, it looked like nothing in this world but a real Sora changing into a frog! What farther confirms this grand discovery is the well known circumstance of the frogs ceasing to hollow as soon as the Sora comes in the Fall.

This sagacious discoverer, however, like many others renowned in history, has found but few supporters, and except his own negroes, has not, as far as I can learn, made a single convert to his opinion. Matters being so circumstanced, and some explanation necessary, I shall endeavour to throw a little more light on the subject by a simple detail of facts, leaving the reader to form his own theory as he pleases.

The Rail or Sora belongs to a genus of birds of which about thirty different species are enumerated by naturalists; and those are distributed over almost every region of the habitable parts of the earth. The general character of these is every where the same. They run swiftly, fly slowly, and usually with the legs

hanging down; become extremely fat; are fond of concealment; and, wherever it is practicable, prefer running to flying. Most of them are migratory, and abound during the summer in certain countries, the inhabitants of which have very rarely an opportunity of seeing them. Of this last the Land Rail of Britain is a striking example. This bird, which during the summer months may be heard in almost every grass and clover field in the kingdom, uttering its common note *Crek, crek*, from sunset to a late hour in the night, is yet unknown, by sight, to more than nine-tenths of the inhabitants. "Its well known cry," says Bewick, "is first heard as soon as the grass becomes long enough to shelter it, and continues till the grass is cut; but the bird is seldom seen, for it constantly skulks among the thickest part of the herbage, and runs so nimbly through it, winding and doubling in every direction, that it is difficult to come near it; when hard pushed by the dog, it sometimes stops short, and squats down, by which means its too eager pursuer overshoots the spot, and loses the trace. It seldom springs but when driven to extremity, and generally flies with its legs hanging down, but never to a great distance; as soon as it alights it runs off, and before the fowler has reached the spot the bird is at a considerable distance."* The *Water Crake*, or Spotted Rail of the same country, which in its plumage approaches nearer to our Rail, is another notable example of the same general habit of the genus. "Its common abode," says the same writer, "is in low swampy grounds, in which are pools or streamlets overgrown with willows, reeds and rushes, where it lurks and hides itself with great circumspection; it is wild, solitary and shy, and will swim, dive or skulk under any cover, and sometimes suffer itself to be knocked on the head, rather than rise before the sportsman and his dog." The Water Rail of the same country is equally noted for the like habits. In short, the whole genus possess this strong family character in a very remarkable degree.

* Bewick's British Birds, vol. i, p. 308.

These three species are well known to migrate into Britain early in spring, and to leave it for the more southern parts of Europe in autumn. Yet they are rarely or never seen on their passage to or from the countries where they are regularly found at different seasons of the year; and this for the very same reasons that they are so rarely seen even in the places where they inhabit.

It is not therefore at all surprising, that the regular migrations of the American Rail or Sora should in like manner have escaped notice in a country like this, whose population bears so small a proportion to its extent; and where the study of natural history is so little attended to. But that these migrations do actually take place, from north to south, and *vice versa*, may be fairly inferred from the common practice of thousands of other species of birds less solicitous of concealment, and also from the following facts.

On the twenty-second day of February I killed two of these birds in the neighbourhood of Savannah in Georgia, where they have never been observed during the summer. On the second of the May following I shot another in a watery thicket below Philadelphia, between the rivers Schuylkill and Delaware, in what is usually called the *Neck*. This last was a male, in full plumage. We are also informed, that they arrive at Hudson's Bay early in June, and again leave that settlement for the south early in autumn. That many of them also remain here to breed is proven by the testimony of persons of credit and intelligence with whom I have conversed, both here and on James river in Virginia, who have seen their nests, eggs and young. In the extensive meadows that border the Schuylkill and Delaware it was formerly common, before the country was so thickly settled there, to find young Rail in the first mowing time among the grass. Mr. James Bartram, brother to the botanist, a venerable and still active man of eighty three, and well acquainted with this bird, says, that he has often seen and caught young Rail in his own meadows in the month of June; he has also seen their nest, which he says is usually

in a tussock of grass, is formed of a little dry grass, and has four or five eggs of a dirty whitish color, with brown or blackish spots; the young run off as soon as they break the shell, are then quite black, and run about among the grass like mice. The old ones he has very rarely observed at that time, but the young often. Almost every old settler along these meadows with whom I have conversed has occasionally seen young Rail in mowing time; and all agree in describing them as covered with blackish down. There can, therefore, be no reasonable doubt as to the residence of many of these birds both here and to the northward during the summer. That there can be as little doubt relative to their winter retreat, will appear more particularly towards the sequel of the present account. During their residence here, in summer, their manners exactly correspond with those of the Water Crake of Britain already quoted; so that, tho actually a different species, their particular habits, common places of resort, and eagerness for concealment, are as nearly the same as the nature of the climates will admit.

Early in August, when the reeds along the shores of the Delaware have attained their full growth, the Rail resort to them in great numbers to feed on the seeds of this plant, of which they, as well as the Rice birds and several others, are immoderately fond. These reeds, which appear to be the *zizania panicula effusa* of Linnæus, and the *zizania clavulosa* of Willdenow, grow up from the soft muddy shores of the tide water, which are alternately dry, and covered with four or five feet of water. They rise with an erect, tapering stem to the height of eight or ten feet, being nearly as thick below as a man's wrist, and cover tracts along the river of many acres. The cattle feed on their long green leaves with avidity, and wade in after them as far as they dare safely venture. They grow up so close together that, except at or near high water, a boat can with difficulty make its way through among them. The seeds are produced at the top of the plant, the blossoms or male

parts occupying the lower branches of the panicle, and the seeds the higher. These seeds are nearly as long as a common sized pin, somewhat more slender, white, sweet to the taste, and very nutritive, as appears by their effects on the various birds that, at this season, feed on them.

When the reeds are in this state, and even while in blossom, the Rail are found to have taken possession of them in great numbers. These are generally numerous in proportion to the full and promising crop of the former. As you walk along the embankment of the river at this season, you hear them squeaking in every direction like young puppies; if a stone be thrown among the reeds there is a general outcry, and a reiterated *kuk kuk kuk*, something like that of a guinea fowl. Any sudden noise, or the discharge of a gun, produces the same effect. In the meantime none are to be seen, unless it be at or near high water; for when the tide is low they universally secrete themselves among the interstices of the reeds, and you may walk past and even over them, where there are hundreds, without seeing a single individual. On their first arrival they are generally lean, and unfit for the table; but as the reeds ripen they rapidly fatten, and from the twentieth of September to the middle of October are excellent, and eagerly sought after. The usual method of shooting them, in this quarter of the country, is as follows. The sportsman furnishes himself with a light batteau, and a stout experienced boatman, with a pole of twelve or fifteen feet long, thickened at the lower end to prevent it from sinking too deep into the mud. About two hours or so before high water they enter the reeds, and each takes his post, the sportsman standing in the bow ready for action, the boatman on the stern seat pushing her steadily through the reeds. The Rail generally spring singly, as the boat advances, and at a short distance a-head, are instantly shot down, while the boatman, keeping his eye on the spot where the bird fell, directs the boat forward and picks it up as the gunner is loading. It is also the boatman's

business to keep a sharp look out, and give the word *mark*, when a Rail springs on either side without being observed by the sportsman, and to note the exact spot where it falls until he has picked it up; for this once lost sight of, owing to the sameness in the appearance of the reeds, is seldom found again. In this manner the boat moves steadily through and over the reeds, the birds flushing and falling, the gunner loading and firing, while the boatman is pushing and picking up. The sport continues till an hour or two after high water, when the shallowness of the water, and the strength and weight of the floating reeds, as also the backwardness of the game to spring as the tide decreases, obliges them to return. Several boats are sometimes within a short distance of each other, and a perpetual cracking of musquetry prevails along the whole reedy shores of the river. In these excursions it is not uncommon for an active and expert marksman to kill ten or twelve dozen in a tide. They are usually shot singly, tho I have known five killed at one discharge of a double-barrelled piece. These instances however are rare.

The flight of these birds among the reeds is usually low; and, shelter being abundant, is rarely extended to more than fifty or one hundred yards. When winged and uninjured in their legs, they swim and dive with great rapidity, and are seldom seen to rise again. I have several times, on such occasions, discovered them clinging with their feet to the reeds under the water, and at other times skulking under the floating reeds with their bill just above the surface. Sometimes when wounded they dive, and rising under the gunwale of the boat secrete themselves there, moving round as the boat moves, until they have an opportunity of escaping unnoticed. They are feeble and delicate in every thing but the legs, which seem to possess great vigour and energy, and their bodies being so remarkably thin, or compressed, as to be less than an inch and a quarter through transversely, they are enabled to pass between the reeds like rats. When seen they are almost constant-

ly jetting up the tail. Yet, tho their flight among the reeds seems feeble and fluttering, every sportsman who is acquainted with them here, must have seen them occasionally rising to a considerable height, stretching out their legs behind them, and flying rapidly across the river where it is more than a mile in width.

Such is the mode of Rail-shooting in the neighbourhood of Philadelphia. In Virginia, particularly along the shores of James river within the tide water, where the Rail, or Sora, are in prodigious numbers, they are also shot on the wing, but more usually taken at night in the following manner. A kind of iron grate is fixed on the top of a stout pole, which is placed like a mast, in a light canoe, and filled with fire. The darker the night the more successful is the sport. The person who manages the canoe is provided with a light paddle ten or twelve feet in length; and about an hour before high water proceeds through among the reeds which lie broken and floating on the surface. The whole space for a considerable way round the canoe is completely enlightened; the birds stare with astonishment, and as they appear are knocked on the head with the paddle, and thrown into the canoe. In this manner from twenty to eighty dozen have been killed by three negroes in the short space of three hours!

At the same season, or a little earlier, they are very numerous in the lagoons near Detroit on our northern frontiers, where another species of reed (of which they are equally fond) grows in shallows in great abundance. Gentlemen who have shot them there, and on whose judgment I can rely, assure me, that they differ in nothing from those they have usually killed on the shores of the Delaware and Schuylkill; they are equally fat, and exquisite eating. On the sea coast of New Jersey, where these reeds are not to be found, this bird is altogether unknown; tho along the marshes of Maurice river and other tributary streams of the Delaware, and wherever the reeds abound, the Rail are sure to be found also. Most of them leave Pennsylvania before the end of October, and

the southern states early in November; tho numbers linger in the warm southern marshes the whole winter. A very worthy gentleman, Mr. Harrison, who lives in Kittiwan, near a creek of that name, on the borders of James river, informed me, that in burning his meadows early in March, they generally raise and destroy several of these birds. That the great body of these Rail winter in countries beyond the United States, is rendered highly probable from their being so frequently met with at sea, between our shores and the West India islands. A captain Douglass informed me, that on his voyage from St. Domingo to Philadelphia, and more than a hundred miles from the capes of the Delaware, one night the man at the helm was alarmed by a sudden crash on deck that broke the glass in the binnacle, and put out the light. On examining into the cause, three Rail were found on deck, two of which were killed on the spot, and the other died soon after. The late bishop Madison, president of William and Mary college, Virginia, assured me, that a Mr. Skipwith, for some time our consul in Europe, on his return to the United States when upwards of three hundred miles from the capes of the Chesapeak, several Rail or Soras, I think five or six, came on board, and were caught by the people. Mr. Skipwith being well acquainted with the bird assured him that they were the very same with those usually killed on James river. I have received like assurances from several other gentlemen and captains of vessels who have met with these birds between the main land and the islands, so as to leave no doubt on my mind of the fact. For, why should it be considered incredible that a bird which can both swim and dive well, and at pleasure fly with great rapidity, as I have myself frequently witnessed, should be incapable of migrating like so many others over extensive tracts of land or sea? Inhabiting, as they do, the remote regions of Hudson's Bay, where it is impossible they could subsist during the rigors of their winter, they must either emigrate from thence or perish; and as the same places in Pennsylvania which abound with

them in October are often laid under ice and snow during the winter, it is as impossible that they could exist here in that inclement season; Heaven has therefore given them, in common with many others, certain prescience of these circumstances, and judgment as well as strength of flight sufficient to seek more genial climates abounding with their suitable food.

The Rail is nine inches long, and fourteen inches in extent; bill yellow, blackish towards the point; lores, front, crown, chin and stripe down the throat black; line over the eye, cheeks and breast fine light ash; sides of the crown, neck, and upper parts generally, olive brown streaked with black, and also with long lines of pure white, the feathers being centered with black on a brown olive ground, and edged with white; these touches of white are shorter near the shoulder of the wing, lengthening as they descend; wing plain olive brown; tertials streaked with black and long lines of white; tail pointed, dusky olive brown, centered with black; the four middle feathers bordered for half their length with lines of white; lower part of the breast marked with semicircular lines of white on a light ash ground; belly white; sides under the wings deep olive, barred with black, white and reddish buff; vent brownish buff; legs, feet and naked part of the thighs yellowish green; exterior edge of the wing white; eyes reddish hazel.

The females and young of the first season have the throat white, the breast pale brown, and little or no black on the head. The males may always be distinguished by their ashy blue breasts and black throats.

During the greater part of the months of September and October the market of Philadelphia is abundantly supplied with Rail, which are sold from half a dollar to a dollar a dozen. Soon after the twentieth of October, at which time our first smart frosts generally take place, these birds move off to the south. In Virginia they usually remain until the first week in November.

Since the above was written, I have received from Mr. George Ord of Philadelphia, some curious particulars relative to this bird, which, as they are new, and come from a gentleman of respectability, well known for his dexterity at Rail-shooting, are worthy of being recorded, and merit further investigation.

“My personal experience,” says Mr. Ord, “has made me acquainted with a fact in the history of the Rail, which perhaps is not generally known; and I shall, as briefly as possible, communicate it to you. Some time in the autumn of the year 1809, as I was walking in a yard, after a severe shower of rain, I perceived the feet of a bird projecting from a spout. I pulled it out, and discovered it to be a Rail, very vigorous, and in perfect health. The bird was placed in a small room, on a gin-case; and I was amusing myself with it, when, in the act of pointing my finger at it, it suddenly sprang forward, apparently much irritated, fell to the floor, and stretching out its feet, and bending its neck until the head nearly touched the back, became to all appearance lifeless. Thinking the fall had killed the bird, I took it up, and began to lament my rashness in provoking it. In a few minutes it again breathed, and it was some time before it perfectly recovered from the fit, into which, it now appeared evident, it had fallen. I placed the Rail in a room, wherein Canary birds were confined; and resolved that, on the succeeding day, I would endeavour to discover whether or no the passion of anger had produced the fit. I entered the room at the appointed time and approached the bird, which had retired on beholding me, in a sullen humour, to a corner. On pointing my finger at it, its feathers were immediately ruffled; and in an instant it sprang forward, as in the first instance, and fell into a similar fit. The following day the experiment was repeated with the like effect. In the fall of 1811 as I was gunning amongst the reeds in pursuit of Rail, I perceived one rise but a few feet before my batteau. The bird had risen about a yard when it became entangled in the tops of a small bunch of reeds, and im-

mediately fell. Its feet and neck were extended, as in the instance above mentioned; and before it had time to recover I killed it. Some few days afterwards, as a friend and I were gunning in the same place, he shot a Rail, and, as we approached the spot to pick it up, another was perceived not a foot off in a fit. I took up the bird, and placed it in the crown of my hat. In a few moments it revived, and was as vigorous as ever. These facts go to prove, that the Rail is subject to gusts of passion, which operate to so violent a degree as to produce a disease, similar in its effects to epilepsy. I leave the explication of the phenomenon to those physiologists who are competent and willing to investigate it. It may be worthy of remark, that the birds affected as described, were all females of the *Rallus Virginianus*, or common Rail.

“The Rail, though generally reputed a simple bird, will sometimes manifest symptoms of considerable intelligence. To those acquainted with Rail-shooting it is hardly necessary to mention, that the tide, in its flux, is considered an almost indispensable auxiliary; for, when the water is off the marsh, the lubricity of the mud, the height and compactness of the reed, and the swiftness of foot of the game, tend to weary the sportsman and to frustrate his endeavours. Even should he succeed in a tolerable degree, the reward is not commensurate to the labour. I have entered the marsh in a batteau at a common tide, and in a well-known haunt have beheld but few birds. The next better tide, on resorting to the same spot, I have perceived abundance of game. The fact is, the Rail dive and conceal themselves beneath the fallen reed, merely projecting their heads above the surface of the water for air, and remain in that situation until the sportsman has passed them; and it is well known, that it is a common practice with wounded Rail to dive to the bottom, and, holding upon some vegetable substance, support themselves in that situation until exhausted. During such times the bird, in escaping from one enemy, has often to encounter another not less formidable. Eels and

cat-fish swarm in every direction, prowling for prey; and it is ten to one if a wounded Rail escapes them. I myself have beheld a large eel make off with a bird that I had shot, before I had time to pick it up; and one of my boys, in bobbing for eels, caught one with a whole Rail in its belly.

“I have heard it observed, that on the increase of the moon the Rail improves in fatness, and decreases in a considerable degree with that planet. Sometimes I have conceited that the remark was just. If it be a fact, I think it may be explained on the supposition, that the bird is enabled to feed at night, as well as by day, while it has the benefit of the moon, and with less interruption than at other periods.”

WOODCOCK.

SCOLOPAX MINOR.

[Plate XLVIII.—Fig. 2.]

Arct. Zool. p. 463, No. 365.—TURK. Syst. 396.

THIS bird, like the preceding, is universally known to our sportsmen. It arrives in Pennsylvania early in March, sometimes sooner; and I doubt not but in mild winters some few remain with us the whole of that season. During the day they keep to the woods and thickets, and at the approach of evening seek the springs and open watery places to feed in. They soon disperse themselves over the country to breed. About the beginning of July, particularly in long continued hot weather, they descend to the marshy shores of our large rivers, their favorite springs and watery recesses inland being chiefly dried up. To the former of these retreats they are pursued by the merciless sportsman, flushed by dogs, and shot down in great numbers. This species of amusement, when eagerly followed, is still more laborious and fatiguing than that of Snipe-shooting; and from the nature of the ground, or cripple as it is usually called, *viz.* deep mire intersected with old logs which are covered and hid from sight by high reeds, weeds and alder bushes, the best dogs are soon tired out; and it is customary with sportsmen who regularly pursue this diversion, to have two sets of dogs, to relieve each other alternately.

The Woodcock usually begins to lay in April. The nest is placed on the ground, in a retired part of the woods, frequently at the root of an old stump. It is formed of a few withered leaves and stalks of grass laid with very little art. The female lays four, sometimes five eggs, about an inch and a half long, and an inch

or rather more in diameter, tapering suddenly to the small end. These are of a dun clay color, thickly marked with spots of brown, particularly at the great end, and interspersed with others of a very pale purple. The nest of the Woodcock has, in several instances that have come to my knowledge, been found with eggs in February; but its usual time of beginning to lay is early in April. In July, August and September they are considered in good order for shooting.

The Woodcock is properly a nocturnal bird, feeding chiefly at night, and seldom stirring about till after sunset. At such times, as well as in the early part of the morning, particularly in spring, he rises by a kind of spiral course to a considerable height in the air, uttering at times a sudden *quack*, till having gained his utmost height he hovers around in a wild irregular manner, making a sort of murmuring sound; then descends with rapidity as he rose. When uttering his common note on the ground, he seems to do it with difficulty, throwing his head towards the earth and frequently jetting up his tail. These notes and manœuvres are most usual in spring, and are the call of the male to his favorite female. Their food consists of various larvæ and other aquatic worms, for which during the evening they are almost continually turning over the leaves with their bill, or searching in the bogs. Their flesh is reckoned delicious, and prized highly. They remain with us till late in autumn, and on the falling of the first snows descend from the ranges of the Alleghany to the lower parts of the country in great numbers; soon after which, *viz.* in November, they move off to the south.

This bird, in its general figure and manners, greatly resembles the Woodcock of Europe, but is considerably less, and very differently marked below, being an entirely distinct species. A few traits will clearly point out their differences. The lower parts of the European Woodcock is thickly barred with dusky waved lines, on a yellowish white ground. The present species has those

parts of a bright ferruginous. The male of the American species weighs from five to six ounces, the female eight; the European twelve. The European Woodcock makes its first appearance in Britain in October and November, that country being in fact only its winter quarters; for early in March they move off to the northern parts of the continent to breed. The American species, on the contrary, winters in countries south of the United States, arrives here early in March, extends its migrations as far, at least, as the river St. Lawrence, breeds in all the intermediate places, and retires again to the south on the approach of winter. The one migrates from the torrid to the temperate regions; the other from the temperate to the arctic. The two birds, therefore, notwithstanding their names are the same, differ not only in size and markings, but also in native climate. Hence the absurdity of those who would persuade us, that the Woodcock of America crosses the Atlantic to Europe, and *vice versa*. These observations have been thought necessary from the respectability of some of our own writers who seem to have adopted this opinion.

How far to the north our Woodcock is found I am unable to say. It is not mentioned as a bird of Hudson's Bay, and being altogether unknown in the northern parts of Europe, it is very probable that its migrations do not extend to a very high latitude; for it may be laid down as a general rule, that those birds which migrate to the arctic regions in either continent, are very often common to both. The head of the Woodcock is of singular conformation, large, somewhat triangular, and the eye fixed at a remarkable distance from the bill, and high in the head. This construction was necessary to give a greater range of vision, and to secure the eye from injury while the owner was searching in the mire. The flight of the Woodcock is slow. When flushed at any time in the woods, he rises to the height of the bushes or underwood, and almost instantly drops behind them again at a short distance, generally running off for several yards as soon as he

touches the ground. The notion that there are two species of Woodcock in this country probably originated from the great difference of size between the male and female, the latter being considerably the larger.

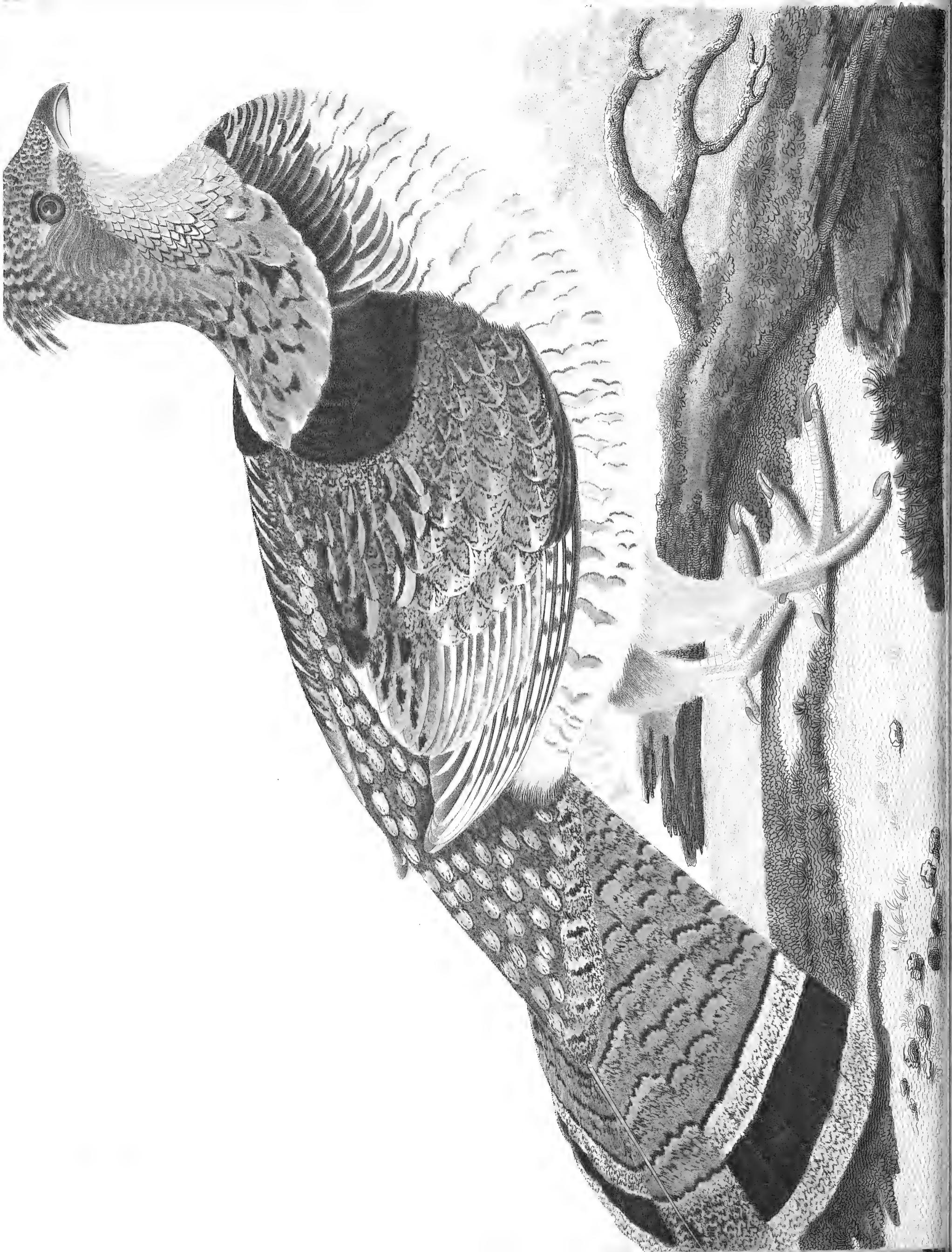
The male Woodcock is ten inches and a half long, and sixteen inches in extent; bill a brownish flesh color, black towards the tip, the upper mandible ending in a slight nob that projects about one-tenth of an inch beyond the lower,* each grooved, and in length somewhat more than two inches and a half; forehead, line over the eye and whole lower parts reddish tawny; sides of the neck inclining to ash; between the eye and bill a slight streak of dark brown; crown from the forepart of the eye backwards black, crossed by three narrow bands of brownish white; cheeks marked with a bar of black, variegated with light brown; edges of the back and of the scapulars pale bluish white; back and scapulars deep black, each feather tipped or marbled with light brown and bright ferruginous, with numerous fine zig-zag lines of black crossing the lighter parts; quills plain dusky brown; tail black, each feather marked along the outer edge with small spots of pale brown, and ending in narrow tips of a pale drab color above and silvery white below; lining of the wing bright rust; legs and feet a pale reddish flesh color; eye very full and black, seated high and very far back in the head; weight five ounces and a half, sometimes six.

The female is twelve inches long, and eighteen in extent; weighs eight ounces; and differs also in having the bill very near three inches in length; the black on the back is not quite so intense; and the sides under the wings are slightly barred with dusky.

* Mr. Pennant, (*Aret. Zool.* p. 463.) in describing the American Woodcock, says that the lower mandible is much shorter than the upper. From the appearance of his figure it is evident that the specimen from which that and his description were taken had lost nearly half an inch from the lower mandible, probably broken off by accident. Turton and others have repeated this mistake.

The young Woodcocks of a week or ten days old are covered with down of a brownish white color, and are marked from the bill along the crown to the hind head with a broad stripe of deep brown; another line of the same passes through the eyes to the hind head, curving under the eye; from the back to the rudiments of the tail runs another of the same tint, and also on the sides under the wings; the throat and breast are considerably tinged with rufous; and the quills, at this age, are just bursting from their light blue sheaths, and appear marbled as in the old birds; the legs and bill are of a pale purplish ash color, the latter about an inch long. When taken, they utter a long, clear but feeble *peep*, not louder than that of a mouse. They are far inferior to young Partridges in running and skulking; and should the female unfortunately be killed, may easily be taken on the spot.





RUFFED GROUS.

TETRAO UMBELLUS.

[Plate XLIX.]

Arct. Zool. p. 301, No. 179.—Ruffed Heathcock, or Grouse, EDW. 248.—La Gelinote hupèe de Pennsylvanie, BRISS. I, 214.—Pl. enl. 104.—BUFF. II, 281.—Phil. Trans. 62. 393.—TURT. Syst. 454.—PEALE'S Museum, No. 4702.

THIS is the *Partridge* of the eastern states, and the *Pheasant* of Pennsylvania and the southern districts. It is represented in the plate of its full size; and was faithfully copied from a perfect and very beautiful specimen.

This elegant species is well known in almost every quarter of the United States, and appears to inhabit a very extensive range of country. It is common at Moose fort, on Hudson's bay, in lat. 51°; is frequent in the upper parts of Georgia; very abundant in Kentucky and the Indiana territory; and was found by captains Lewis and Clarke in crossing the great range of mountains that divide the waters of the Columbia and Missouri, more than three thousand miles, by their measurement, from the mouth of the latter. Its favorite places of resort are high mountains, covered with the Balsam pine, hemlock and such like evergreens. Unlike the Pinnated Grouse, it always prefers the woods; is seldom or never found in open plains; but loves the pine sheltered declivities of mountains near streams of water. This great difference of disposition in two species, whose food seems to be nearly the same, is very extraordinary. In those open plains called the barrens of Kentucky, the Pinnated Grouse was seen in great numbers, but none of the Ruffed; while in the high groves with which that

singular tract of country is interspersed, the latter, or Pheasant, was frequently met with; but not a single individual of the former.

The native haunts of the Pheasant being a cold, high, mountainous and woody country, it is natural to expect that as we descend from thence to the sea shores, and the low, flat and warm climate of the southern states, these birds should become more rare, and such indeed is the case. In the lower parts of Carolina, Georgia and Florida they are very seldom observed; but as we advance inland to the mountains they again make their appearance. In the lower parts of New Jersey we indeed occasionally meet with them; but this is owing to the more northerly situation of the country; for even here they are far less numerous than among the mountains.

Dr. Turton and several other English writers have spoken of a Long-tailed Grouse, said to inhabit the back parts of Virginia, which can be no other than the present species, there being, as far as I am acquainted, only these two, the Ruffed and Pinnated Grouse, found native within the United States.

The manners of the Pheasant are solitary; they are seldom found in coveys of more than four or five together, and more usually in pairs or singly. They leave their sequestered haunts in the woods early in the morning, and seek the path or road, to pick up gravel, and glean among the droppings of the horses. In travelling among the mountains that bound the Susquehanna, I was always able to furnish myself with an abundant supply of these birds every morning without leaving the path. If the weather be foggy, or lowering, they are sure to be seen in such situations. They generally move along with great stateliness, their broad fan-like tail spread out in the manner exhibited in the drawing. The drumming, as it is usually called, of the Pheasant, is another singularity of this species. This is performed by the male alone. In walking through solitary woods frequented by these birds, a stranger is surprized by suddenly hearing a kind of thump-

ing very similar to that produced by striking two full blown ox-bladders together, but much louder; the strokes at first are slow and distinct; but gradually increase in rapidity till they run into each other, resembling the rumbling sound of very distant thunder, dying away gradually on the ear. After a few minutes pause this is again repeated; and in a calm day may be heard nearly half a mile off. This drumming is most common in spring, and is the call of the cock to his favorite female. It is produced in the following manner. The bird standing on an old prostrate log, generally in a retired and sheltered situation, lowers his wings, erects his expanded tail, contracts his throat, elevates the two tufts of feathers on the neck, and inflates his whole body something in the manner of the turkey cock, strutting and wheeling about with great stateliness. After a few manœuvres of this kind, he begins to strike with his stiffened wings in short and quick strokes, which become more and more rapid until they run into each other as has been already described. This is most common in the morning and evening, tho I have heard them drumming at all hours of the day. By means of this the gunner is led to the place of his retreat; tho to those unacquainted with the sound there is great deception in the supposed distance, it generally appearing to be much nearer than it really is.

The Pheasant begins to pair in April, and builds its nest early in May. This is placed on the ground at the root of a bush, old log or other sheltered and solitary situation, well surrounded with withered leaves. Unlike that of the Quail it is open above, and is usually composed of dry leaves and grass. The eggs are from nine to fifteen in number, of a brownish white, without any spots, and nearly as large as those of a pullet. The young leave the nest as soon as hatched, and are directed by the cluck of the mother, very much in the manner of the common hen. On being surprised she exhibits all the distress and affectionate manœuvres of the Quail, and of most other birds, to lead you away from the

spot. I once started a hen Pheasant with a single young one, seemingly only a few days old; there might have been more, but I observed only this one. The mother fluttered before me for a moment; but suddenly darting towards the young one, seized it in her bill, and flew off along the surface through the woods, with great steadiness and rapidity, till she was beyond my sight, leaving me in great surprise at the incident. I made a very close and active search around the spot for the rest, but without success. Here was a striking instance of something more than what is termed blind instinct, in this remarkable deviation from her usual manœuvres when she has a numerous brood. It would have been impossible for me to have injured this affectionate mother, who had exhibited such an example of presence of mind, reason and sound judgment, as must have convinced the most bigotted advocates of mere *instinct*. To carry off a whole brood in this manner at once would have been impossible, and to attempt to save one at the expense of the rest would be unnatural. She therefore usually takes the only possible mode of saving them in that case by decoying the person in pursuit of herself, by such a natural imitation of lameness as to impose on most people. But here, in the case of a single solitary young one, she instantly altered her plan, and adopted the most simple and effectual means for its preservation.

The Pheasant generally springs within a few yards, with a loud whirring noise, and flies with great vigor through the woods, beyond reach of view, before it alights. With a good dog, however, they are easily found; and at some times exhibit a singular degree of infatuation, by looking down, from the branches where they sit, on the dog below, who, the more noise he keeps up, seems the more to confuse and stupify them, so that they may be shot down, one by one, till the whole are killed, without attempting to fly off. In such cases those on the lower limbs must be taken first, for should the upper ones be first killed, in their fall they alarm

those below, who immediately fly off. In deep snows they are usually taken in traps, commonly dead traps, supported by a figure 4 trigger. At this season when suddenly alarmed they frequently dive into the snow, particularly when it has newly fallen, and coming out at a considerable distance, again take wing. They are pretty hard to kill, and will often carry off a large load to the distance of two hundred yards, and drop down dead. Sometimes in the depth of winter they approach the farm house, and lurk near the barn, or about the garden. They have also been often taken young and tamed, so as to associate with the fowls; and their eggs have frequently been hatched under the common hen; but these rarely survive until full grown. They are exceedingly fond of the seeds of grapes; occasionally eat ants, chesnuts, blackberries, and various vegetables. Formerly they were numerous in the immediate vicinity of Philadelphia; but as the woods were cleared and population increased, they retreated to the interior. At present there are very few to be found within several miles of the city, and those only singly, in the most solitary and retired woody recesses.

The Pheasant is in best order for the table in September and October. At this season they feed chiefly on whortle-berries, and the little red aromatic partridge-berries, the last of which gives their flesh a peculiar delicate flavour. With the former our mountains are literally covered from August to November; and these constitute at that season the greater part of their food. During the deep snows of winter they have recourse to the buds of alder, and the tender buds of the laurel. I have frequently found their crops distended with a large handful of these latter alone; and it has been confidently asserted that after having fed for some time on the laurel buds, their flesh becomes highly dangerous to eat of, partaking of the poisonous qualities of the plant. The same has been asserted of the flesh of the deer when in severe weather and deep snows they subsist on the leaves and bark of the laurel. Tho I have myself eat freely of the flesh of the Pheasant, after empty-

ing it of large quantities of laurel buds, without experiencing any bad consequences, yet from the respectability of those, some of them eminent physicians, who have particularized cases in which it has proved deleterious, and even fatal, I am inclined to believe that in certain cases where this kind of food has been long continued, and the birds allowed to remain undrawn for several days, until the contents of the crop and stomach have had time to diffuse themselves through the flesh, as is too often the case, it may be unwholesome and even dangerous. Great numbers of these birds are brought to our markets, at all times during Fall and winter, some of which are brought from a distance of more than a hundred miles, and have been probably dead a week or two, unpicked and undrawn, before they are purchased for the table. Regulations prohibiting them from being brought to market unless picked and drawn, would very probably be a sufficient security from all danger. At these inclement seasons, however, they are generally lean and dry, and indeed at all times their flesh is far inferior to that of the Quail, or of the Pinnated Grouse. They are usually sold in Philadelphia market at from three quarters of a dollar to a dollar and a quarter a pair, and sometimes higher.

The Pheasant, or Partridge of New England, is eighteen inches long, and twenty-three inches in extent; bill a horn color, paler below; eye reddish hazel, immediately above which is a small spot of bare skin of a scarlet color; crested head and neck variegated with black, red brown, white and pale brown; sides of the neck furnished with a tuft of large black feathers, twenty-nine or thirty in number, which it occasionally raises; this tuft covers a large space of the neck destitute of feathers; body above a bright rust color, marked with oval spots of yellowish white, and sprinkled with black; wings plain olive brown, exteriorly edged with white, spotted with olive; the tail is rounding, extends five inches beyond the tips of the wings, is of a bright reddish brown, beautifully marked with numerous waving transverse bars of black, is

also crossed by a broad band of black within half an inch of the tip, which is bluish white thickly sprinkled and specked with black; body below white, marked with large blotches of pale brown; the legs are covered half way to the feet with hairy down of a brownish white color; legs and feet pale ash; toes pectinated along the sides, the two exterior ones joined at the base as far as the first joint by a membrane; vent yellowish rust color.

The female and young birds differ in having the ruff or tufts of feathers on the neck of a dark brown color, as well as the bar of black on the tail inclining much to the same tint.

GREAT HORNED-OWL.

STRIX VIRGINIANA.

[Plate L.—Fig. 1.]

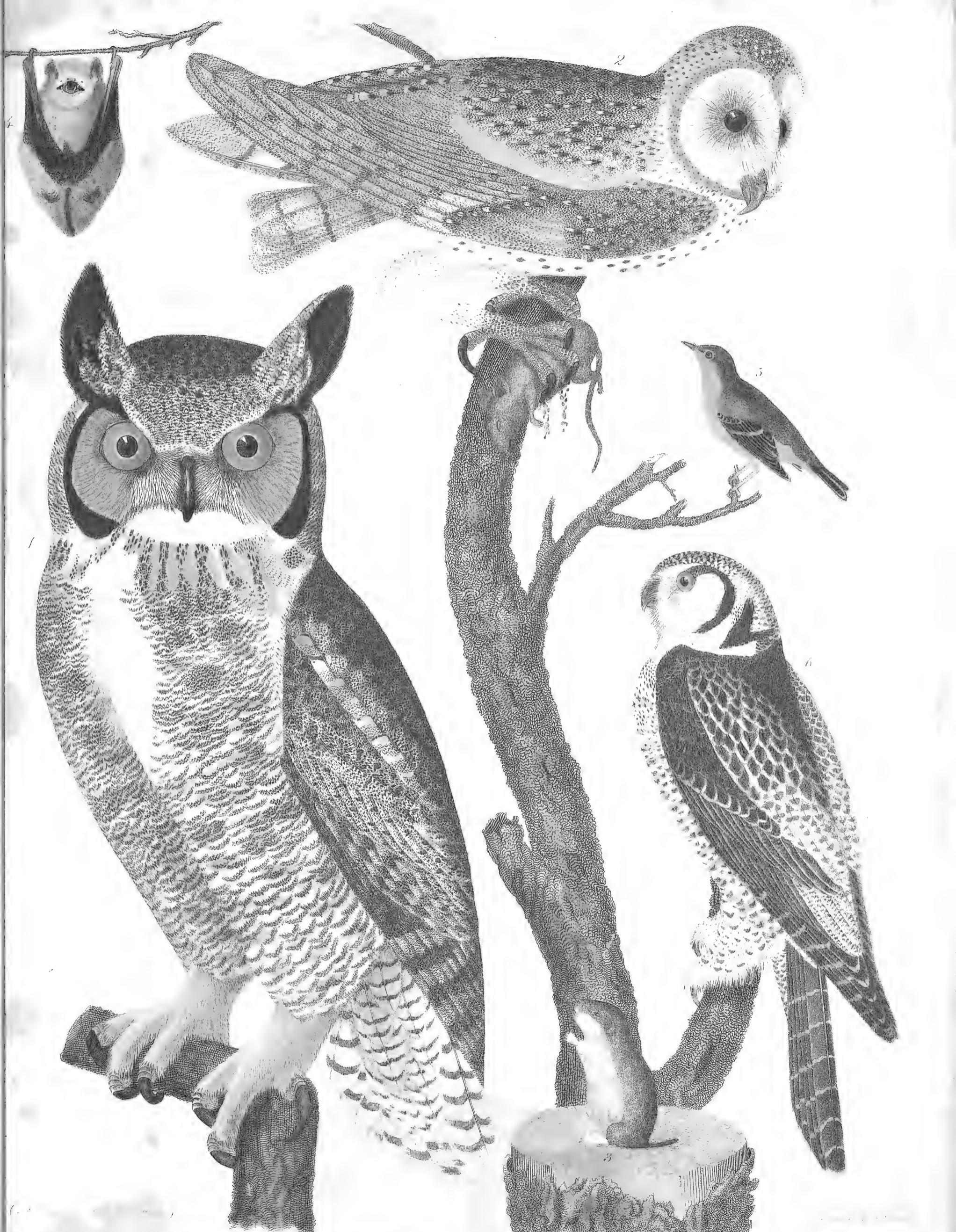
Arct. Zool. p. 228, No. 114.—EDW, 60.—LATH. I, 119.—TURK. *Syst.* p. 166.—PEALE'S *Museum*,
No. 410.

THE figure of this bird, as well as of those represented in the same plate, is reduced to one half its natural dimensions. By the same scale the greater part of the Hawks and Owls of the present volume are drawn; their real magnitude rendering this unavoidable.

This noted and formidable Owl is found in almost every quarter of the United States. His favorite residence, however, is in the dark solitudes of deep swamps covered with a growth of gigantic timber; and here, as soon as evening draws on, and mankind retire to rest, he sends forth such sounds as seem scarcely to belong to this world, startling the solitary pilgrim as he slumbers by his forest fire,

“ Making night hideous.”

Along the mountainous shores of the Ohio, and amidst the deep forests of Indiana, alone, and reposing in the woods, this ghostly watchman has frequently warned me of the approach of morning, and amused me with his singular exclamations. Sometimes sweeping down and around my fire, uttering a loud and sudden *Waugh O! Waugh O!* sufficient to have alarmed a whole garrison. He has other nocturnal solos, no less melodious, one of which very strikingly resembles the half-suppressed screams of a person suffocating, or throttled, and cannot fail of being exceedingly entertain-



1. Great Horned Owl. 2. Barn Owl. 3. Woodchuck. 4. Mouse. 5. Red Bat. 6. Small-headed Nighthawk. 7. Hawk Owl

ing to a lonely benighted traveller in the midst of an Indian wilderness.

This species inhabits the country round Hudson's Bay; and, according to Pennant, who considers it a mere variety of the Eagle Owl (*Strix bubo*), of Europe, is found in Kamtschatka; extends even to the arctic regions, where it is often found white; and occurs as low as Astrakan. It has also been seen white in the United States; but this has doubtless been owing to disease or natural defect, and not to climate. It preys on young rabbits, squirrels, rats, mice, Partridges, and small birds of various kinds. It has been often known to prowl about the farm house, and carry off chickens from roost. A very large one, wing-broken while on a foraging excursion of this kind, was kept about the house for several days, and at length disappeared no one knew how. Almost every day after this hens and chickens also disappeared, one by one, in an unaccountable manner, till in eight or ten days very few were left remaining. The fox, the minx and weasel were alternately the reputed authors of this mischief, until one morning, the old lady herself rising before day to bake, in passing towards the oven, surprised her late prisoner the Owl regaling himself on the body of a newly killed hen! The thief instantly made for his hole under the house, from whence the enraged matron soon dislodged him with the brush handle, and without mercy dispatched him. In this snug retreat were found the greater part of the feathers, and many large fragments, of her whole family of chickens.

There is something in the character of the Owl so recluse, solitary and mysterious, something so discordant in the tones of its voice, heard only amid the silence and gloom of night, and in the most lonely and sequestered situations, as to have strongly impressed the minds of mankind in general with sensations of awe and abhorrence of the whole tribe. The poets have indulged freely in this general prejudice; and in their descriptions and delineations of midnight storms and gloomy scenes of nature, the Owl is

generally introduced to heighten the horror of the picture. Ignorance and superstition, in all ages, and in all countries, listen to the voice of the Owl and even contemplate its physiognomy with feelings of disgust, and a kind of fearful awe. The priests, or conjurers, among some of our Indian nations, have taken advantage of the reverential horror for this bird, and have adopted the *Great Horned Owl*, the subject of the present account, as the symbol or emblem of their office. "Among the Creeks," says Mr. Bartram, "the junior priests, or students, constantly wear a white mantle, and have a Great Owl-skin cased and stuffed very ingeniously, so well executed as almost to appear like the living bird, having large sparkling glass beads, or buttons, fixed in the head for eyes. This insignia of wisdom and divination they wear sometimes as a crest on the top of the head; at other times the image sits on the arm, or is borne on the hand. These bachelors are also distinguished from the other people by their taciturnity, grave and solemn countenance, dignified step, and singing to themselves songs or hymns in a low, sweet voice, as they stroll about the town." *

Nothing is a more effectual cure for superstition than a knowledge of the general laws and productions of nature; nor more forcibly leads our reflections to the first, great, self-existent CAUSE of all, to whom our reverential awe is then humbly devoted, and not to any of his dependent creatures. With all the gloomy habits and ungracious tones of the Owl, there is nothing in this bird supernatural or mysterious, or more than that of a simple bird of prey formed for feeding by night, like many other animals, and of reposing by day. The harshness of its voice, occasioned by the width and capacity of its throat, may be intended by heaven as an alarm and warning to the birds and animals on which it preys to secure themselves from danger. The voices of all carnivorous birds and animals are also observed to be harsh and hideous, probably for this very purpose.

* Travels, p. 504.

The Great Horned Owl is not migratory, but remains with us the whole year. During the day he slumbers in the thick evergreens of deep swamps, or seeks shelter in large hollow trees. He is very rarely seen abroad by day, and never but when disturbed. In the month of May they usually begin to build. The nest is generally placed in the fork of a tall tree, and is constructed of sticks piled in considerable quantities, lined with dry leaves and a few feathers. Sometimes they choose a hollow tree, and in that case carry in but few materials. The female lays four eggs, nearly as large as those of a hen, almost globular, and of a pure white. In one of these nests, after the young had flown, were found the heads and bones of two chickens, the legs and head of the Golden-winged Woodpecker, and part of the wings and feathers of several other birds. It is generally conjectured that they hatch but once in the season.

The length of the male of this species is twenty inches; the bill is large, black and strong, covered at the base with a cere; the eyes golden yellow; the horns are three inches in length, and very broad, consisting of twelve or fourteen feathers, their webs black, broadly edged with bright tawny; face rusty, bounded on each side by a band of black; space between the eyes and bill whitish; whole lower parts elegantly marked with numerous transverse bars of dusky on a bright tawny ground, thinly interspersed with white; vent pale yellow ochre barred with narrow lines of brown; legs and feet large and covered with feathers or hairy down of a pale brown color; claws very large, blue black; tail rounded, extending about an inch beyond the tips of the wings, crossed with six or seven narrow bars of brown, and variegated or marbled with brown and tawny; whole upper parts finely pencilled with dusky, on a tawny and whitish ground; chin pure white, under that a band of brown succeeded by another narrow one of white; eyes very large.

The female is full two feet in length, and has not the white on the throat so pure. She has also less of the bright ferruginous or tawny tint below; but is principally distinguished by her superior magnitude.

WHITE, OR BARN OWL.

STRIX FLAMMEA.

[Plate L.—Fig. 2.]

LATH. I, 138.—*Arct. Zool.* p. 235, No. 124.—*Phil. Trans.* III, 138.—*L'Effraie, ou L'Effrasaie*,
 BUFF. I, 366, pl. 26. *Pl. enl.* 440.—BEWICK'S *British Birds*, I, p. 89.—*Common Owl*, TURT. *Syst.*
 p. 170.—PEALE'S *Museum*, No. 486.

THIS Owl, tho so common in Europe, is much rarer in this part of the United States than the preceding; and is only found here during very severe winters. This may possibly be owing to the want of those favorite recesses in this part of the world, which it so much affects in the eastern continent. The multitudes of old ruined castles, towers, monasteries and cathedrals that every where rise to view in those countries, are the chosen haunts of this well known species. Its savage cries at night give, with vulgar minds, a cast of supernatural horror to those venerable mouldering piles of antiquity. This species, being common to both continents, doubtless extends to the arctic regions. It also inhabits Tartary, where, according to Pennant, “the Monguls and natives almost pay it divine honours, because they attribute to this species the preservation of the founder of their empire, Cinghis Khan. That prince, with his small army, happened to be surprised and put to flight by his enemies, and forced to conceal himself in a little coppice: an Owl settled on the bush under which he was hid, and induced his pursuers not to search there, as they thought it impossible that any man could be concealed in a place where that bird would perch. From thenceforth they held it to be sacred, and every one wore a plume of the feathers of this species on his head. To this day the Kalmucs continue the custom on all great festivals; and some

tribes have an idol in form of an Owl, to which they fasten the real legs of one.”*

This species is rarely found in Pennsylvania in summer. Of its place and manner of building I am unable, from my own observation, to speak. The bird itself has been several times found in the hollow of a tree, and was once caught in a barn in my neighbourhood. European writers inform us, that it makes no nest; but deposits its eggs in the holes of walls, and lays five or six of a whitish color; is said to feed on mice and small birds, which, like the most of its tribe, it swallows whole, and afterwards emits the bones, feathers and other indigestible parts at its mouth, in the form of small round cakes, which are often found in the empty buildings it frequents. During its repose it is said to make a blowing noise resembling the snoring of a man.†

It is distinguished in England by various names, the Barn Owl, the Church Owl, Gillihowlet and Screech Owl. In the lowlands of Scotland it is universally called the Hoolet.

The White or Barn Owl is fourteen inches long, and upwards of three feet six inches in extent; bill a whitish horn color, longer than is usual among its tribe; space surrounding each eye remarkably concave, the radiating feathers meeting in a high projecting ridge arching from the bill upwards; between these lies a thick tuft of bright tawny feathers that are scarcely seen unless the ridges be separated; face white surrounded by a border of narrow, thick-set velvety feathers, of a reddish cream color at the tip, pure silvery white below, and finely shafted with black; whole upper parts a bright tawny yellow, thickly sprinkled with whitish and pale purple, and beautifully interspersed with larger drops of white, each feather of the back and wing coverts ending in an oblong spot of white bounded by black; head large, tumid; sides of the neck pale yellow ochre, thinly sprinkled with small touches of

* *Arct. Zool.* p. 235.

† *Bewick, I.* p. 90.

dusky; primaries and secondaries the same, thinly barred and thickly sprinkled with dull purplish brown; tail two inches shorter than the tips of the wings, even, or very slightly forked, pale yellowish, crossed with five bars of brown, and thickly dotted with the same; whole lower parts pure white, thinly interspersed with small round spots of blackish; thighs the same; legs long, thinly covered with short white down nearly to the feet, which are of a dirty white and thickly warted; toes thinly clad with white hairs; legs and feet large and clumsy. The ridge or shoulder of the wing is tinged with bright orange brown. The aged bird is more white; in some the spots of black on the breast are wanting, and the color below a pale yellow; in others a pure white.

The female measures fifteen inches and a half in length, and three feet eight inches in extent; is much darker above; the lower parts tinged with tawny, and marked also with round spots of black. One of these was lately sent me, which was shot on the border of the meadows below Philadelphia. Its stomach contained the mangled carcasses of four large meadow mice, hair, bones and all. The common practice of most Owls is, after breaking the bones, to swallow the mouse entire; the bones, hair and other indigestible parts are afterwards discharged from the mouth in large roundish dry balls, that are frequently met with in such places as these birds usually haunt.

As the *meadow mouse* is so eagerly sought after by those birds and also by great numbers of Hawks, which regularly at the commencement of winter resort to the meadows below Philadelphia, and to the marshes along the sea shore for the purpose of feeding on these little animals, some account of them may not be improper in this place. Fig. 3. represents the meadow mouse drawn by the same scale, *viz.* reduced to one half its natural dimensions. This species appears not to have been taken notice of by Turton in the latest edition of his translation of Linnæus. From the nose to the insertion of the tail it measures four inches; the tail is be-

tween three quarters and an inch long, hairy, and usually curves upwards; the fore feet are short, five-toed, the inner toe very short, but furnished with a claw; hind feet also five-toed; the ears are shorter than the fur, through which, though large, they are scarcely noticeable; the nose is blunt; the color of the back is dark brown, that of the belly hoary; the fur is long and extremely fine; the hind feet are placed very far back, and are also short; the eyes exceeding small. This mischievous creature is a great pest to the meadows, burrowing in them in every direction; but is particularly injurious to the embankments raised along the river, perforating them in numerous directions and admitting the water which afterwards increases to dangerous breaches, inundating large extents of these low grounds, and thus becoming the instruments of their own destruction. In their general figure they bear great resemblance to the common musk-rat, and, like them, swim and dive well. They feed on the bulbous roots of plants, and also on garlic, of which they are remarkably fond.

Another favorite prey of most of our Owls is the bat, one species of which is represented at fig. 4, as it hung during the day in the woods where I found it. This also appears to be a nondescript. The length of this bat from the nose to the tip of the tail is four inches; the tail itself is as long as the body, but generally curls up inwards; the general color is a bright iron grey, the fur being of a reddish cream at bottom, then strongly tinged with lake and minutely tipped with white; the ears are scarcely half an inch long, with two slight valves; the nostrils are somewhat tubular; fore teeth in the upper jaw, none, in the lower, four, not reckoning the tusks; the eyes are very small black points; the chin, upper part of the breast and head, are of a plain reddish cream color; the wings have a single hook or claw each, and are so constructed that the animal may hang either with its head or tail downward. I have several times found two hanging fast locked together behind a leaf, the hook of one fixed in the mouth of the other;

the hind feet are furnished with five toes, sharp clawed; the membrane of the wings is dusky, shafts light brown; extent twelve inches. In a cave, not far from Carlisle in Pennsylvania, I found a number of these bats in the depth of winter, in very severe weather; they were lying on the projecting shelves of the rocks, and when the brand of fire was held near them, wrinkled up their mouths shewing their teeth; when held in the hand for a short time, they became active, and after being carried into a stove room flew about as lively as ever.

SMALL-HEADED FLYCATCHER.

MUSCICAPA MINUTA.

[Plate L.—Fig. 5.]

THIS very rare species is the only one I have met with, and is drawn reduced to half its size, to correspond with the rest of the figures on the same plate. It was shot on the twenty-fourth of April, in an orchard, and was remarkably active, running, climbing and darting about among the opening buds and blossoms with extraordinary agility. From what quarter of the United States or of North America it is a wanderer, I am unable to determine, having never before met with an individual of the species. Its notes and manner of breeding are also alike unknown to me. This was a male: it measured five inches long, and eight and a quarter in extent; the upper parts were dull yellow olive; the wings dusky brown edged with lighter; the greater and lesser coverts tipped with white; the lower parts dirty white, stained with dull yellow, particularly on the upper parts of the breast; the tail dusky brown, the two exterior feathers marked like those of many others with a spot of white on the inner vanes; head remarkably small; bill broad at the base, furnished with bristles, and notched near the tip; legs dark brown; feet yellowish; eye dark hazel.

Since writing the above I have shot several individuals of this species in various quarters of New Jersey, particularly in swamps. They all appear to be nearly alike in plumage. Having found them there in June, there is no doubt of their breeding in that state, and probably in such situations far to the southward; for many of the southern summer birds that rarely visit Pennsylvania, are yet common to the swamps and pine woods of New Jersey. Similarity of soil and situation, of plants and trees, and con-

sequently of fruits, seeds, insects, &c. are doubtless their inducements. The Summer Red-bird, Great Carolina Wren, Pine-creeping Warbler, and many others, are rarely seen in Pennsylvania, or to the northward, tho they are common in many parts of West Jersey.

HAWK OWL.

STRIX HUDSONIA.

[Plate L.—Fig. 6.]

Little Hawk Owl, EDW. 62.—LATH. I, 142, No. 29.—*Phil. Trans.* 61. 385.—*Le Chat-huant de Canada*, BRISS. I, 518.—BUFF. I, 391.—*Chouette à longue queue de Siberie*, Pl. enl. 463.—*Arct. Zool.* p. 234, No. 123.—PEALE'S *Museum*, No. 500.

THIS is another inhabitant of both continents, a kind of equivocal species, or rather a connecting link between the Hawk and Owl tribes, resembling the latter in the feet, and in the radiating feathers round the eye and bill; but approaching nearer to the former in the smallness of its head, narrowness of its face, and in its length of tail. In short, it seems just such a figure as one would expect to see generated between a Hawk and an Owl of the same size, were it possible for them to produce; and yet is as distinct, independent and original a species as any other. The figure on the plate is reduced to one half the size of life. It has also another strong trait of the Hawk tribe, in flying and preying by day, contrary to the general habit of Owls. It is characterized as a bold and active species, following the fowler, and carrying off his game as soon as it is shot. It is said to prey on Partridges and other birds; and is very common at Hudson's Bay; where it is called by the Indians *Coparacoch*.* We are also informed that this same species inhabits Denmark and Sweden, is frequent in all Siberia, and on the west side of the Uralian chain as far as Casan and the Volga; but not in Russia.† It was also seen by the navigators near Sandwich sound, in lat. 61° north.

* Edwards.

† Pennant.

This species is very rare in Pennsylvania and the more southern parts of the United States. Its favorite range seems to be along the borders of the arctic regions, making occasional excursions southwardly when compelled by severity of weather and consequent scarcity of food. I sometime ago received a drawing of this bird from the District of Maine, where it was considered rare; that, and the specimen from which the drawing in the plate was taken, which was shot in the neighbourhood of Philadelphia, are the only two that have come under my notice. These having luckily happened to be male and female, have enabled me to give a description of both. Of their nest, or manner of breeding, we have no account.

The male of this species is fifteen inches long; the bill orange yellow, and almost hid among the feathers; plumage of the chin curving up over the under mandible; eyes bright orange; head small; face narrow, and with very little concavity; cheeks white; crown and hind head dusky black, thickly marked with round spots of white; sides of the neck marked with a large curving streak of brown black, with another a little behind it of a triangular form; back, scapulars, rump and tail coverts brown olive, thickly speckled with broad spots of white; the tail extends three inches beyond the tips of the wings, is of a brown olive color and crossed with six or seven narrow bars of white, rounded at the end, and also tipped with white; the breast and chin is marked with a large spot of brown olive; upper part of the breast light, lower and all the parts below elegantly barred with dark brown and white; legs and feet covered to and beyond the claws with long whitish plumage, slightly yellow, and barred with fine lines of olive; claws horn color. The weight of this bird was twelve ounces.

The female is much darker above; the quills are nearly black, and the upper part of the breast is blotched with deep blackish brown.

It is worthy of remark, that in all Owls that fly by night the exterior edges and sides of the wing quills are slightly recurved, and end in fine hairs or points; by which means the bird is enabled to pass through the air with the greatest silence, a provision necessary for enabling them the better to surprise their prey. In the Hawk Owl now before us, which flies by day, and to whom this contrivance would be of no consequence, it is accordingly omitted, or at least is scarcely observable. So judicious, so wise and perfectly applicable, are all the dispositions of the Creator.



1 Long-eared Owl. 2 Marsh Hawk.
3 Swallow-tailed Hawk.

MARSH HAWK.

FALCO ULIGINOSUS.

[Plate LI.—Fig. 1.]

EDW. IV, 291.—LATH. I, 90.—*Arct. Zool.* p. 208, No. 105.—BARTRAM, p. 290.—PEALE'S *Museum*,
No. 318.

A DRAWING of this Hawk was transmitted to Mr. Edwards more than fifty years ago by Mr. William Bartram, and engraved in Plate 291 of Edwards's Ornithology. At that time, and I believe till now, it has been considered as a species peculiar to this country.

I have examined various individuals of this Hawk, both in summer and in the depth of winter, and find them to correspond so nearly with the Ring-tail of Europe that I have no doubt of their being the same species.

This Hawk is most numerous where there are extensive meadows and salt marshes, over which it sails very low, making frequent circuitous sweeps over the same ground in search of a species of mouse figured in Plate L, and very abundant in such situations. It occasionally flaps the wings, but is most commonly seen sailing about within a few feet of the surface. They are usually known by the name of the Mouse Hawk along the sea coast of New Jersey, where they are very common. Several were also brought me last winter from the meadows below Philadelphia. Having never seen its nest, I am unable to describe it from my own observation. It is said, by European writers, to build on the ground, or on low limbs of trees. Mr. Pennant observes, that it sometimes changes to a rust colored variety, except on the rump and tail. It is found, as was to be expected, at Hudson's Bay,

being native in both this latitude and that of Britain. We are also informed that it is common in the open and temperate parts of Russia and Siberia; and extends as far as lake Baikal, tho it is said not to be found in the north of Europe.*

The Marsh Hawk is twenty-one inches long, and three feet eleven inches in extent; cere and legs yellow, the former tinged with green, the latter long and slender; nostril large, triangular, this and the base of the bill thickly covered with strong curving hairs that rise from the space between the eye and bill, arching over the base of the bill and cere; this is a particular characteristic; bill blue, black at the end; eye dark hazel; cartilage overhanging the eye, and also the eyelid, bluish green; spot under the eye, and line from the front over it, brownish white; head above and back dark glossy chocolate brown, the former slightly seamed with bright ferruginous; scapulars spotted with the same *under the surface*; lesser coverts and band of the wing here and there edged with the same; greater coverts and primaries tipped with whitish; quills deep brown at the extreme half, some of the outer ones hoary on the exterior edge; all the primaries yellowish white on the inner vanes and upper half, also barred on the inner vanes with black; tail long, extending three inches beyond the wings, rounded at the end, and of a pale sorrel color, crossed by four broad bars of very dark brown, the two middle feathers excepted, which are barred with deep and lighter shades of chocolate brown; chin pale ferruginous; round the neck a collar of bright rust color; breast, belly and vent pale rust, shafted with brown; femorals long, tapering, and of the same pale rust tint; legs feathered near an inch below the knee. This was a female. The male differs chiefly in being rather lighter, and somewhat less.

This Hawk is particularly serviceable to the rice fields of the southern states, by the havock it makes among the clouds of Rice

* Pallas, as quoted by Pennant.

Buntings that spread such devastation among that grain, in its early stage. As it sails low, and swiftly, over the surface of the field, it keeps the flocks in perpetual fluctuation, and greatly interrupts their depredations. The planters consider one Marsh Hawk to be equal to several negroes for alarming the Rice birds. Formerly the Marsh Hawk used to be numerous along the Schuylkill and Delaware, during the time the reeds were ripening, and the Reed-birds abundant; but they have of late years become less numerous here.

Mr. Pennant considers the “*strong, thick, and short legs*” of this species as specific distinctions from the Ring-tailed Hawk; the legs, however, are *long* and *slender*; and a Marsh Hawk such as he has described, with strong, thick and short legs, is no where to be found in the United States.

SWALLOW-TAILED HAWK.

FALCO FURCATUS.

[Plate LI.—Fig. 2.]

LINN. *Syst.* 129.—LATH. I, 60.—*Hirundo maxima Peruviana avis prædatoris calcaribus instructa*,
 FEUILLEE, *Voy. Peru*, tom. II, 33.—CATESB. I, 4.—*Le Melan de la Caroline*, BRISS. I. 418.—BUFF.
 I, 221.—TURT. *Syst.* 149.—*Arct. Zool.* p. 210, No. 108.—PEALE'S *Museum*, No. 142.

THIS very elegant species inhabits the southern districts of the United States in summer; is seldom seen as far north as Pennsylvania, but is very abundant in South Carolina and Georgia, and still more so in West Florida, and the extensive prairies of Ohio and the Indiana territory. I met with these birds, in the early part of May, at a place called Duck creek, in Tennessee, and found them sailing about in great numbers near Bayo Manchac on the Mississippi, twenty or thirty being within view at the same time. At that season a species of cicada, or locust, swarmed among the woods, making a deafening noise, and I could perceive these Hawks frequently snatching them from the trees. A species of lizard which is very numerous in that quarter of the country, and has the faculty of changing its color at will, also furnishes the Swallow-tailed Hawk with a favorite morsel. These lizards are sometimes of the most brilliant light green, in a few minutes change to a dirty clay color, and again become nearly black. The Swallow-tailed Hawk, and Mississippi Kite, feed eagerly on this lizard; and it is said, on a small green snake also which is the mortal enemy of the lizard, and frequently pursues it to the very extremity of the branches, where both become the prey of the Hawk.*

* This animal, if I mistake not, is the *Lacerta Bullaris*, or *Bladder Lizard*, of Turton, vol. I, p. 666. The facility with which it changes color is surprising, and not generally known to naturalists.

The Swallow-tailed Hawk retires to the south in October, at which season, Mr. Bartram informs me they are seen in Florida at a vast height in the air, sailing about with great steadiness; and continue to be seen thus, passing to their winter quarters, for several days. They usually feed from their claws as they fly along. Their flight is easy and graceful, with sometimes occasional sweeps among the trees, the long feathers of their tail spread out, and each extremity of it used, alternately to lower, elevate, or otherwise direct their course. I have never yet met with their nests.

These birds are particularly attached to the extensive prairies of the western countries, where their favorite snakes, lizards, grasshoppers and locusts are in abundance. They are sometimes, tho rarely, seen in Pennsylvania and New Jersey, and that only in long and very warm summers. A specimen now in the Museum of Philadelphia, was shot within a few miles of this city. We are informed, that one was taken in the South sea, off the coast which lies between Ylo and Arica, in about lat. 23° south, on the eleventh of September, by the Reverend the Father Louis Feuillee.* They are also common in Mexico, and extend their migrations as far as Peru.

The Swallow-tailed Hawk measures full two feet in length, and upwards of four feet six inches in extent; the bill is black; cere yellow, covered at the base with bristles; iris of the eye silvery cream, surrounded with a blood red ring; whole head and neck pure white, the shafts fine black hairs; the whole lower parts also pure white; the throat and breast shafted in the same manner; upper parts, or back, black, glossed with green and purple; whole lesser coverts very dark purple; wings long, reaching within two inches of the tip of the tail, and black; tail also very long, and remarkably forked, consisting of twelve feathers, all black glossed with green and purple; several of the tertials white or edged with

* Jour. des Obs. tom. II, 33.

white, but generally covered by the scapulars; inner vanes of the secondaries white on their upper half, black towards their points; lining of the wings white; legs yellow, short and thick, and feathered before half way below the knee; claws much curved, whitish; outer claw very small. The greater part of the plumage is white at the base; and when the scapulars are a little displaced, they appear spotted with white.

This was a male in perfect plumage. The color and markings of the male and female are nearly alike.

LONG-EARED OWL.

STRIX OTUS.

[Plate LI.—Fig. 3.]

TURT. *Syst.* p. 167.—BEWICK, I, p. 84.—PEALE'S *Museum*, No. 434.

THIS Owl is common to both continents, and is much more numerous in Pennsylvania than the White, or Barn Owl: six or seven were found in a single tree, about fifteen miles from this city. There is little doubt but this species is found inhabiting America to a high latitude; tho we have no certain accounts of the fact. Except in size, this species has more resemblance to the Great Horned Owl than any other of its tribe. It resembles it also in breeding among the branches of tall trees; lays four eggs of nearly a round form, and pure white.* The young are greyish white until nearly full grown, and roost during the day close together on a limb, among the thickest of the foliage. This Owl is frequently seen abroad during the day, but is not remarkable for its voice or habits.

The Long-eared Owl is fourteen inches and a half long, and three feet two inches in extent; ears large, composed of six feathers gradually lengthening from the front one backwards, black, edged with rusty yellow; irides vivid yellow; inside of the circle of the face white, outside or cheeks rusty; at the internal angle of the eye a streak of black; bill blackish horn color; forehead and crown deep brown, speckled with minute points of white and pale rusty; outside circle of the face black, finely marked with small curving spots of white; back and wings dark brown, sprinkled and

* Buffon remarks, that it rarely constructs a nest of its own; but not unfrequently occupies that of others, particularly the Magpie.

spotted with white, pale ferruginous and dusky; primaries barred with brownish yellow and dusky, darkening towards the tips; secondaries more finely barred and powdered with white and dusky; tail rounded at the end, of the same length with the wings, beautifully barred and marbled with dull white and pale rusty, on a dark brown ground; throat and breast clouded with rusty, cream, black and white; belly beautifully streaked with large arrow heads of black; legs and thighs plain pale rusty, feathered to the claws, which are blue black, large and sharp; inside of the wing brownish yellow, with a large spot of black at the root of the primaries.

This was a female. Of the male I cannot speak precisely; tho from the numbers of these birds which I have examined in the Fall, when it is difficult to ascertain their sex, I conjecture that they differ very little in color.

About six or seven miles below Philadelphia, and not far from the Delaware, is a low swamp thickly covered with trees, and inundated during great part of the year. This place is the resort of great numbers of the Qua-bird, or Night Raven, (*Ardea nycticorax*) where they build in large companies. On the twenty-fifth of April, while wading among the dark recesses of this place, observing the habits of these birds, I discovered a *Long-eared Owl* which had taken possession of one of their nests, and was sitting; on mounting to the nest I found it contained four eggs, and breaking one of these the young appeared almost ready to leave the shell. There were numbers of the Qua-birds' nests on the adjoining trees all around, and one of them actually on the same tree. Thus we see how unvarying are the manners of this species, however remote and different the countries may be where it has taken up its residence.





10

1

3

Learns from Nature by A. Wilson.

Engraved by Lawson.

1. Red-tailed Hawk. 2. American Buzzard.

3. Ash-coloured Hawk.

RED-TAILED HAWK.

FALCO BOREALIS.

[Plate LII.—Fig. 1.]

Arct. Zool. p. 205, No. 100.—*American Buzzard*, LATH. I, 50.—*TURT. Syst.* p. 151.—*F. Aquilinus cauda ferruga*, *Great Eagle Hawk*, BARTRAM, p. 290.—*PEALE'S Museum*, No. 182.

THE figure of this bird, and those of the other two Hawks on the same plate, are reduced to exactly half the dimensions of the living subjects. These representations are offered to the public with a confidence in their fidelity; but *these*, I am sorry to say, are almost all I have to give towards elucidating their history. Birds naturally thinly dispersed over a vast extent of country, retiring during summer to the depth of the forests to breed, approaching the habitations of man, like other thieves and plunderers, with shy and cautious jealousy, seldom permitting a near advance, subject to great changes of plumage, and, since the decline of falconry, seldom or never domesticated, offer to those who wish eagerly to investigate their history, and to delineate their particular character and manners, great and insurmountable difficulties. Little more can be done in such cases than to identify the species, and trace it through the various quarters of the world where it has been certainly met with.

The Red-tailed Hawk is most frequently seen in the lower parts of Pennsylvania during the severity of winter. Among the extensive meadows that border the Schuylkill and Delaware below Philadelphia, where flocks of Larks, (*Alauda magna*) and where mice and moles are in great abundance, many individuals of this Hawk spend the greater part of the winter. Others prowl around the plantations, looking out for vagrant chickens; their method of

seizing which, is by sweeping swiftly over the spot, and grappling them with their talons, bear them away to the woods. The bird from which the figure in the plate was drawn, was surprised in the act of feeding on a hen he had just killed, and which he was compelled to abandon. The remains of the chicken were immediately baited to a steel trap, and early the next morning the unfortunate Red-tail was found a prisoner, securely fastened by the leg. The same hen which the day before he had massacred, was, the very next, made the means of decoying him to his destruction; in the eye of the farmer a system of fair and just retribution.

This species inhabits the whole United States, and, I believe, is not migratory, as I found it in the month of May as far south as Fort Adams in the Mississippi territory. The young were at that time nearly as large as their parents, and were very clamorous, making an incessant squeeling noise. One, which I shot, contained in its stomach mingled fragments of frogs and lizards.

The Red-tailed Hawk is twenty inches long, and three feet nine inches in extent; bill blue black; cere and sides of the mouth yellow, tinged with green; lores and spot on the under eye-lid white, the former marked with fine radiating hairs; eyebrow, or cartilage, a dull eel skin color, prominent, projecting over the eye; a broad streak of dark brown extends from the sides of the mouth backwards; crown and hind head dark brown seamed with white and ferruginous; sides of the neck dull ferruginous streaked with brown; eye large; iris pale amber; back and shoulders deep brown; wings dusky, barred with blackish; ends of the five first primaries nearly black; scapulars barred broadly with white and brown; sides of the tail coverts white, barred with ferruginous, middle ones dark, edged with rust; tail rounded, extending two inches beyond the wings, and of a bright red brown, with a single band of black near the end, and tip with brownish white; on some of the lateral feathers are slight indications of the remains of other narrow bars; lower parts brownish white; the breast ferruginous.

streaked with dark brown; across the belly a band of interrupted spots of brown; chin white; femorals and vent pale brownish white, the former marked with a few minute heart-shaped spots of brown; legs yellow, feathered half way below the knees.

This was a male. Another specimen shot within a few days after, agreed in almost every particular of its color and markings with the present; and on dissection was found to be a female.

AMERICAN BUZZARD, OR WHITE-BREASTED HAWK.

FALCO LEVERIANUS?

[Plate LII.—Fig. 2.]

PEALE'S *Museum*, No. 400.

IT is with some doubt and hesitation that I introduce the present as a distinct species from the preceding. In their size and general aspect they resemble each other considerably; yet I have found both males and females among each; and in the present species I have sometimes found the ground color of the tail strongly tinged with ferruginous, and the bars of dusky but slight; while in the preceding the tail is sometimes wholly red brown, the single bar of black near the tip excepted; in other specimens evident remains of numerous other bars are visible. In the meantime both are figured, and future observations may throw more light on the matter.

This bird is more numerous than the last; but frequents the same situations in winter. One, which was shot in the wing, lived with me several weeks; but refused to eat. It amused itself by frequently hopping from one end of the room to the other; and sitting for hours at the window, looking down on the passengers below. At first, when approached by any person, he generally put himself in the position in which he is represented; but after some time he became quite familiar, permitting himself to be handled, and shutting his eyes as if quite passive. Tho he lived so long without food, he was found on dissection to be exceedingly fat, his stomach being enveloped in a mass of solid fat of nearly an inch in thickness.

The White-breasted Hawk is twenty-two inches long, and four feet in extent; cere pale green; bill pale blue, black at the point; eye bright straw color; eyebrow projecting greatly; head broad, flat and large; upper part of the head, sides of the neck and back, brown streaked and seamed with white and some pale rust; scapulars and wing-coverts spotted with white; wing quills much resembling the preceding species; tail coverts white, handsomely barred with brown; tail slightly rounded, of a pale brown color, varying in some to a sorrel, crossed by nine or ten bars of black, and tipped for half an inch with white; wings brown, barred with dusky; inner vanes nearly all white; chin, throat and breast pure white, with the exception of some slight touches of brown that enclose the chin; femorals yellowish white, thinly marked with minute touches of rust; legs bright yellow, feathered half way down; belly broadly spotted with black or very deep brown; the tips of the wings reach to the middle of the tail.

My reasons for inclining to consider this a distinct species from the last, is that of having uniformly found the present two or three inches larger than the former, tho this may possibly be owing to their greater age.

ASH-COLORED, OR BLACK-CAP HAWK.

FALCO ATRICAPILLUS.

[Plate LII.—Fig. 3.]

PEALE'S *Museum*, No. 406.

OF this beautiful species I can find no precise description. The Ash-colored Buzzard of Edwards differs so much from this, particularly in wanting the fine zig-zag lines below, and the black cap, that I cannot for a moment suppose them to be the same. The individual from which the drawing was made is faithfully represented in the plate, reduced to one half its natural dimensions. This bird was shot within a few miles of Philadelphia, and is now preserved, in good order, in Mr. Peale's museum.

Its general make and aspect denotes great strength and spirit; its legs are strong, and its claws of more than proportionate size. Should any other specimen or variety of this Hawk, differing from the present, occur during the publication of this work, it will enable me more accurately to designate the species.

The Black-cap Hawk is twenty-one inches in length; the bill and cere are blue; eye reddish amber; crown black, bordered on each side by a line of white finely speckled with black; these lines of white meet on the hind head; whole upper parts slate, tinged with brown, slightest on the quills; legs feathered half way down, and, with the feet, of a yellow color; whole lower parts and femorals white, most elegantly speckled with fine transverse pencilled zig-zag lines of dusky, all the shafts being a long black line; vent pure white.

If this be not the celebrated *Goshawk*, formerly so much esteemed in falconry, it is very closely allied to it. I have never

myself seen a specimen of that bird in Europe, and the descriptions of their best naturalists vary considerably; but from a careful examination of the figure and account of the Goshawk, given by the ingenious Mr. Bewick, (Brit. Birds, v. I, p. 65.) I have very little doubt that the present will be found to be the same.

The Goshawk inhabits France and Germany; is not very common in South Britain, but more frequent in the northern parts of the island, and is found in Russia and Siberia. Buffon, who reared two young birds of this kind, a male and female, observes, that "the Goshawk before it has shed its feathers, that is, in its first year, is marked on the breast and belly with longitudinal brown spots; but after it has had two moultings they disappear, and their place is occupied by transverse waving bars, which continue during the rest of its life;" he also takes notice, that tho the male was much smaller than the female, it was fiercer and more vicious.

Mr. Pennant informs us that the Goshawk is used by the emperor of China in his sporting excursions, when he is usually attended by his grand falconer and a thousand of inferior rank. Every bird has a silver plate fastened to its foot with the name of the falconer who has the charge of it, that in case it should be lost, it may be restored to the proper person; but if he should not be found, the bird is delivered to another officer, called the *guardian of lost birds*, who, to make his situation known, erects his standard in a conspicuous place among the army of hunters. The same writer informs us, that he examined in the Leverian museum, a specimen of the Goshawk which came from America, and which was superior in size to the European. He adds, "they are the best of all Hawks for falconry."*

* Aret. Zool. p. 204.

BLACK HAWK.

FALCO NIGER.

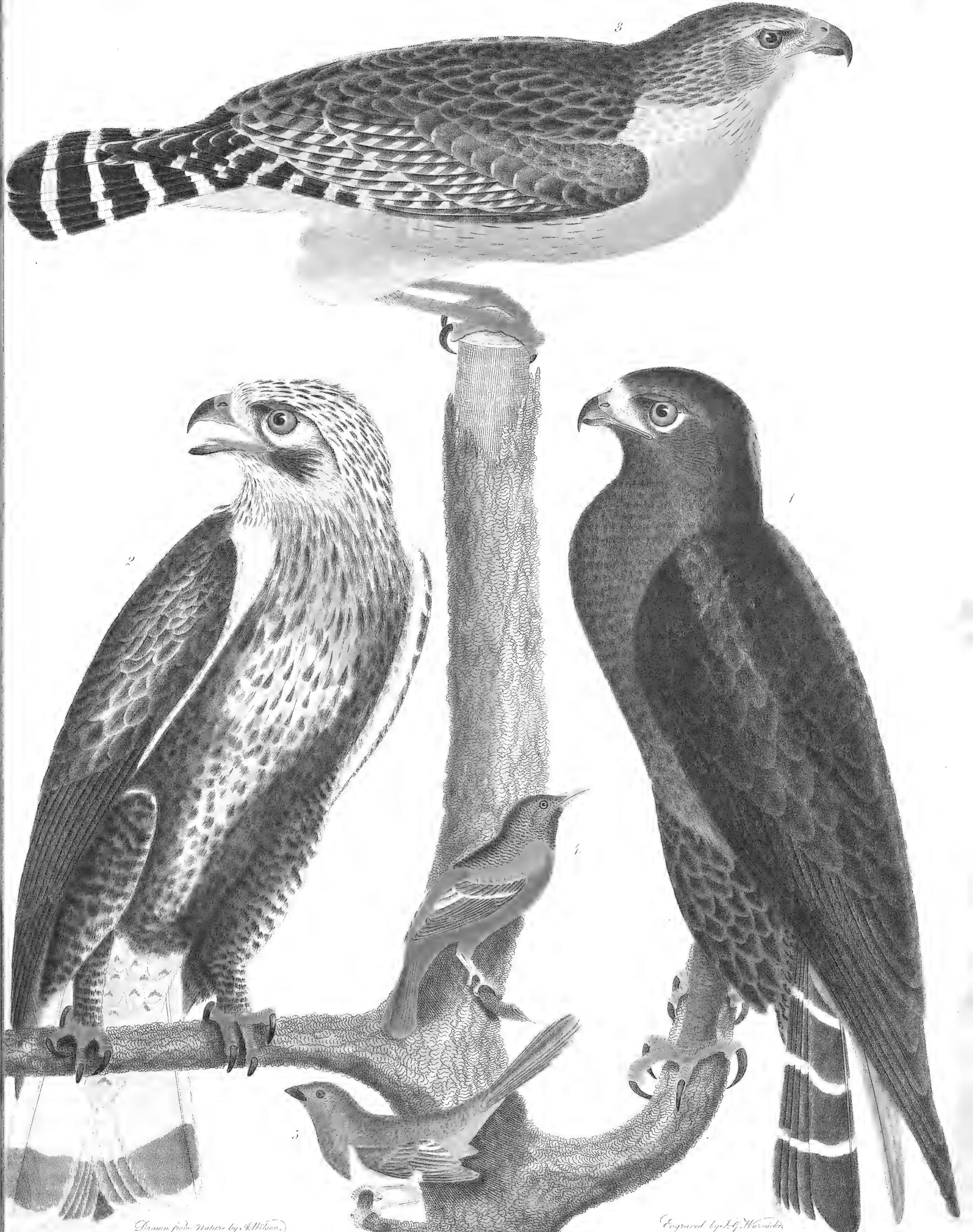
[Plate LIII.—Fig. 1.]

PEALE'S *Museum*, No. 404.

THIS and the other two figures on the same plate are reduced from the large drawings, which were taken of the exact size of nature, to one half their dimensions. I regret the necessity which obliges me to contract the figures of these birds, by which much of the grandeur of the originals is lost; particular attention, however has been paid in the reduction, to the accurate representation of all their parts.

This is a remarkably shy and wary bird, found most frequently along the marshy shores of our large rivers; feeds on mice, frogs and moles; sails much, and sometimes at a great height; has been seen to kill a duck on wing; sits by the side of the marshes on a stake for an hour at a time, in an almost perpendicular position, as if dozing; flies with great ease, and occasionally with great swiftness, seldom flapping the wings; seems particularly fond of river shores, swamps and marshes; is most numerous with us in winter, and but rarely seen in summer; is remarkable for the great size of its eye, length of its wings, and shortness of its toes. The breadth of its head is likewise uncommon.

The Black Hawk is twenty-one inches long, and four feet two inches in extent; bill bluish black; cere and sides of the mouth orange yellow; feet the same; eye very large, iris bright hazel; cartilage overhanging the eye, prominent, of a dull greenish color; general color above brown black, slightly dashed with dirty white; nape of the neck pure white *under the surface*; front white;



Drawn from Nature by A. Wilson.

Engraved by J. G. Warriner.

1. Black Hawk. Variety of d. 3. Red-shouldered. H. 4. Female Baltimore Oriole. 5. Female Towhee Bunting.

whole lower parts black, with slight tinges of brown, and a few circular touches of the same on the femorals; legs feathered to the toes, and black touched with brownish; the wings reach rather beyond the tip of the tail; the five first primaries are white on their inner vanes; tail rounded at the end, deep black, crossed with five narrow bands of pure white, and broadly tipped with dull white; vent black, spotted with white; inside vanes of the primaries snowy; claws black, strong and sharp; toes remarkably short.

I strongly suspect this bird to be of the very same species with the next, though both were found to be males. Although differing greatly in plumage, yet in all their characteristic features they strikingly resemble each other. The *Chocolate-colored Hawk* of Pennant, and *St. John's Falcon* of the same author, (Arct. Zool. No. 93 and 94,) are doubtless varieties of this; and very probably his *Rough-legged Falcon* also. His figures however are bad, and ill calculated to exhibit the true form and appearance of the bird.

This species is a native of North America alone. We have no account of its ever having been seen in any part of Europe; nor have we any account of its place or manner of breeding.

BLACK HAWK.—(*VARIETY*.)

[Plate LIII.—Fig. 2.]

PEALE'S *Museum*, No. 405.

THIS is probably a younger bird of the preceding species, being, tho a male, somewhat less than its companion. Both were killed in the same meadow, at the same place and time. In form, features and habitudes it exactly agreed with the former.

This bird measures twenty inches in length, and in extent four feet; the eyes, bill, cere, toes and claws, were as in the preceding; head above white, streaked with black and light brown; along the eyebrows a black line; cheeks streaked like the head; neck streaked with black and reddish brown, on a pale yellowish white ground; whole upper parts brown black, dashed with brownish white and pale ferruginous; tail white for half its length, ending in brown, marked with one or two bars of dusky and a large bar of black, and tipt with dull white; wings as in the preceding, their lining variegated with black, white and ferruginous; throat and breast brownish yellow, dashed with black; belly beautifully variegated with spots of white, black and pale ferruginous; femorals and feathered legs the same, but rather darker; vent plain brownish white.

The original color of these birds in their young state may probably be pale brown, as the present individual seemed to be changing to a darker color on the neck and sides of the head. This change, from pale brown to black, is not greater than some of the genus are actually known to undergo. One great advantage of examining living, or newly killed specimens, is, that whatever may be the difference of color between any two, the eye, countenance and form of the head instantly betray the common family to

which they belong; for this family likeness is never lost in the living bird, tho in stuffed skins and preserved specimens it is frequently entirely obliterated. I have no hesitation, therefore, in giving it as my opinion, that the present and preceding birds are of the same species, differing only in age, both being males. Of the female I am unable at present to speak.

Pennant in his account of the Chocolate-colored Hawk, which is very probably the same with the present and preceding species, observes, that it preys much on Ducks, sitting on a rock, and watching their rising, when it instantly strikes them.

While traversing our sea coast and salt marshes, between Cape May and Egg Harbour, I was every where told of a *Duck Hawk*, noted for striking down Ducks on wing, tho flying with their usual rapidity. Many extravagancies were mingled with these accounts, particularly, that it always struck the Ducks with its breast bone, which was universally said to project several inches, and to be strong and sharp. From the best verbal descriptions I could obtain of this Hawk, I have strong suspicions that it is no other than the *Black Hawk*, as its wings were said to be long and very pointed, the color very dark, the size nearly alike, and several other traits given that seemed particularly to belong to this species. As I have been promised specimens of this celebrated Hawk next winter, a short time will enable me to determine the matter more satisfactorily. Few gunners in that quarter are unacquainted with the *Duck Hawk*, as it often robs them of their wounded birds before they are able to reach them.

RED-SHOULDERED HAWK.

FALCO LINEATUS.

[Plate LIII.—Fig. 3.]

Arct. Zool. p. 206, No. 102.—LATH. I, 56, No. 36.—TURT. Syst. p. 153.—PEALE'S Museum, No. 205.

THIS species is more rarely met with than either of the former. Its haunts are in the neighbourhood of the sea. It preys on Larks, Sandpipers and the small Ringed Plover, and frequently on Ducks. It flies high and irregularly, and not in the sailing manner of the Long-winged Hawks. I have occasionally observed this bird near Egg Harbour in New Jersey; and once in the meadows below this city. This Hawk was first transmitted to Great Britain by Mr. Blackburne, from Long island in the state of New York. Of its manner of building, eggs, &c. we are altogether unacquainted.

The Red-shouldered Hawk is nineteen inches in length; the head and back are brown, seamed and edged with rusty; bill blue black; cere and legs yellow; greater wing-coverts and secondaries pale olive brown, thickly spotted on both vanes with white and pale rusty; primaries very dark, nearly black, and barred or spotted with white; tail rounded, reaching about an inch and a half beyond the wings, black, crossed by five bands of white, and broadly tipped with the same; whole breast and belly bright rusty, speckled and spotted with transverse rows of white, the shafts black; chin and cheeks pale brownish, streaked also with black; iris reddish hazel; vent pale ochre, tipped with rusty; legs feathered a little below the knees, long; these and the feet a fine yellow; claws black; femorals pale rusty, faintly barred with a darker tint.

In the month of April I shot a female of this species, and the only one I have yet met with, in a swamp seven or eight miles below Philadelphia. The eggs were, some of them, nearly as large as peas, from which circumstance I think it probable they breed in such solitary parts even in this state. In color, size and markings it differed very little from the male described above. The tail was scarcely quite so black, and the white bars not so pure: it was also something larger.

FEMALE BALTIMORE ORIOLE.

ORIOLOUS BALTIMORUS.

[Plate LIII.—Fig. 4.]

Amer. Orn. v. I, p. 23.

THE history of this beautiful species has been particularly detailed in the first volume of the present work; to this representation of the female, drawn of half the size of nature, a few particulars may be added. The males generally arrive several days before the females, saunter about their wonted places of residence, and seem lonely and less sprightly than after the arrival of their mates. In the spring and summer of 1811, a Baltimore took up its abode in Mr. Bartram's garden, whose notes were so singular as particularly to attract my attention; they were as well known to me as the voice of my most intimate friend. On the thirtieth of April, 1812, I was again surprised and pleased at hearing this same Baltimore in the garden, whistling his identical old chant; and I observed that he particularly frequented that quarter of the garden where the tree stood, on the pendent branches of which he had formed his nest the preceding year. This nest had been taken possession of by the House Wren, a few days after the Baltimore's brood had abandoned it; and curious to know how the little intruder had furnished it within, I had taken it down early in the Fall after the Wren herself had also raised a brood of six young in it, and which was her second that season. I found it stript of its original lining, floored with sticks, or small twigs, above which were laid feathers; so that the usual complete nest of the Wren occupied the interior of that of the Baltimore.

The chief difference between the male and female Baltimore Oriole, is the superior brightness of the orange color of the former to that of the latter. The black on the head, upper part of the back and throat of the female is intermixed with dull orange; whereas in the male those parts are of a deep shining black; the tail of the female also wants the greater part of the black, and the whole lower parts are of a much duskier orange.

I have observed that these birds are rarely seen in pine woods, or where these trees generally prevail. On the ridges of our high mountains they are also seldom to be met with. In orchards and on well cultivated farms they are most numerous, generally preferring such places to build in, rather than the woods or forest.

FEMALE TOWHEE BUNTING.

EMBERIZA ERYTHROPTHALMA.

[Plate LIII.—Fig. 5.]

Amer. Orn. v. II, p. 35.—TURT. Syst. p. 534.—PEALE'S Museum, No. 5970.

THIS bird differs considerably from the male in color; and has, if I mistake not, been described as a distinct species by European naturalists, under the appellation of the "*Rusty Bunting.*" The males of this species, like those of the preceding, arrive several days sooner than the females. In one afternoon's walk through the woods, on the twenty-third of April, I counted more than fifty of the former, and did not observe any of the latter, tho I made a very close search for them. This species frequents in great numbers the barrens covered with shrub oaks; and inhabits even to the tops of our mountains. They are almost perpetually scratching among the fallen leaves, and feed chiefly on worms, beetles and gravel. They fly low, flirting out their broad white-streaked tail, and uttering their common note *Tow-heè*. They build always on the ground, and raise two brood in the season. For a particular account of the manners of this species see our history of the male, vol. II, p. 35.

The female Tow-hee is eight inches long, and ten inches in extent; iris of the eye a deep blood color; bill black; plumage above and on the breast a dark reddish drab, reddest on the head and breast; sides under the wings light chesnut; belly white; vent yellow ochre; exterior vanes of the tertials white; a small spot of white marks the primaries immediately below their coverts, and another slighter streak crosses them in a slanting direc-

tion; the three exterior tail feathers are tipped with white; the legs and feet flesh-colored.

This species seems to have a peculiar dislike to the sea-coast, as in the most favorable situations, in other respects, within several miles of the sea it is scarcely ever to be met with. Scarcity of its particular kinds of favorite food in such places may probably be the reason; as it is well known that many kinds of insects, on the larvæ of which it usually feeds, carefully avoid the neighbourhood of the sea.

BROAD-WINGED HAWK.

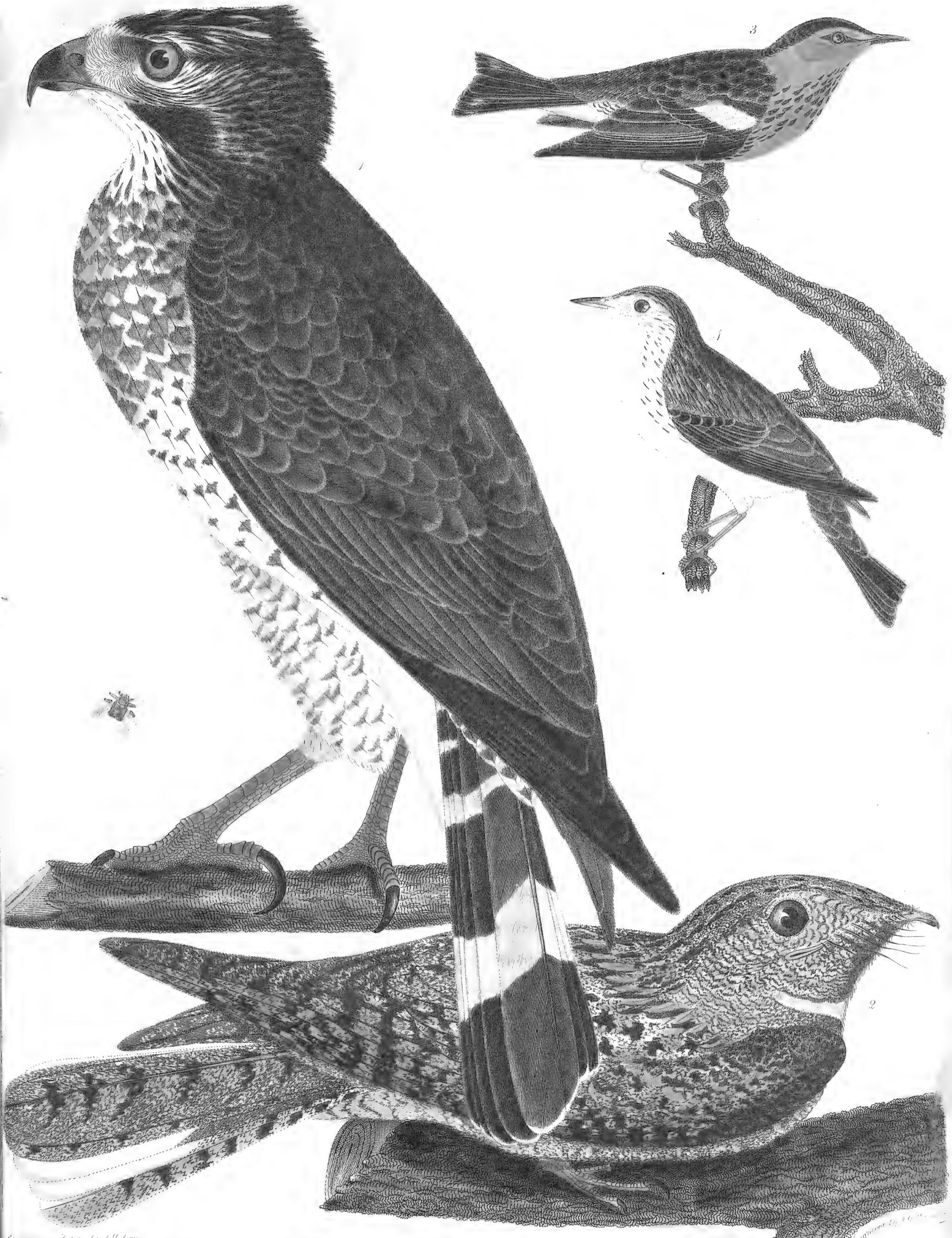
FALCO PENNSYLVANICUS.

[Plate LIV.—Fig. 1.]

PEALE'S *Museum*, No. 407.

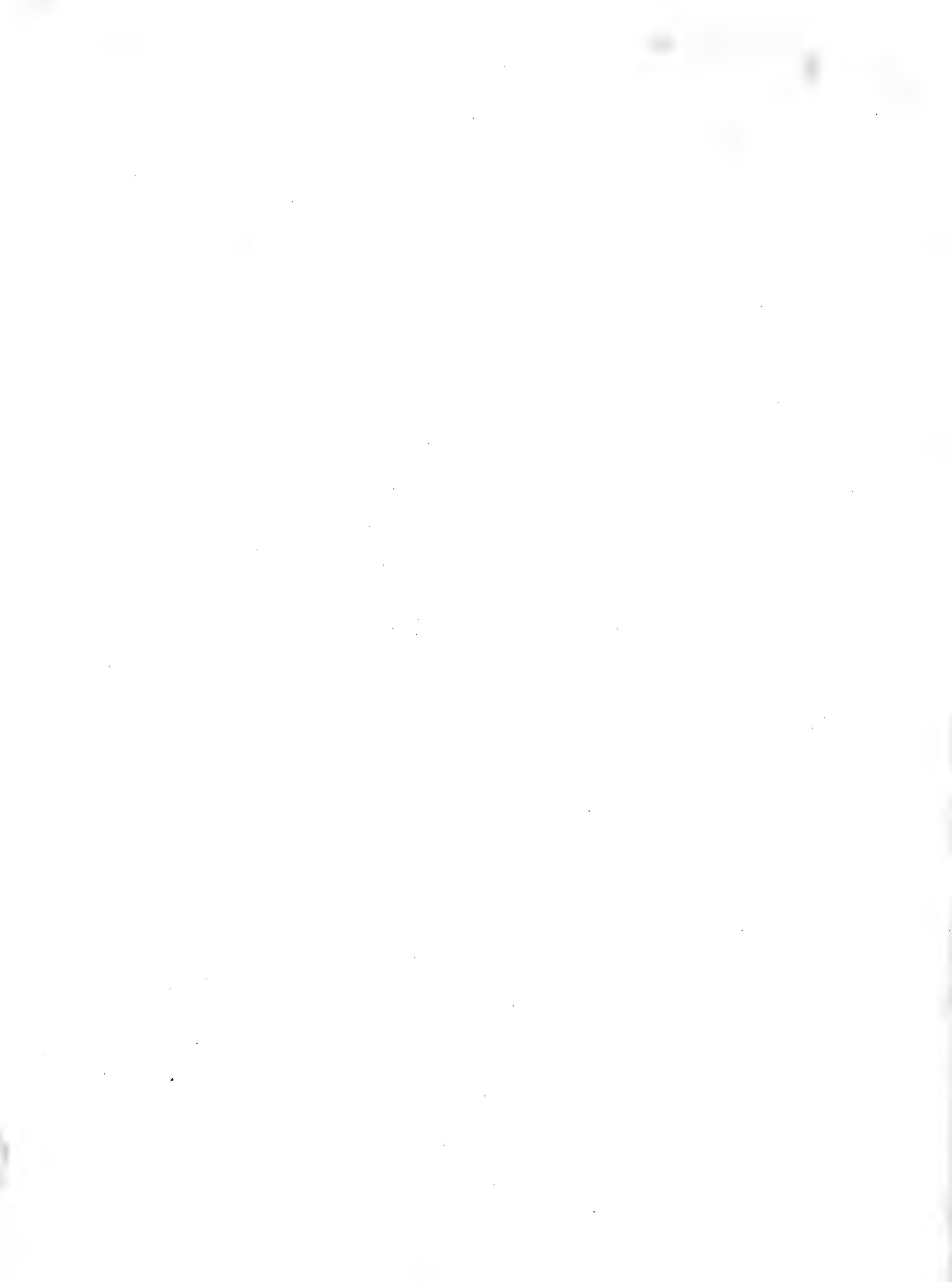
THIS new species, as well as the rest of the figures on the same plate, is represented of the exact size of life. The Hawk was shot on the sixth of May, in Mr. Bartram's woods, near the Schuylkill, and was afterwards presented to Mr. Peale, in whose collection it now remains. It was perched on the dead limb of a high tree, feeding on something which was afterwards found to be the meadow mouse (figured in plate L.). On my approach it uttered a whining kind of whistle, and flew off to another tree where I followed and shot it. Its great breadth of wing, or width of the secondaries, and also of its head and body when compared with its length, struck me as peculiarities. It seemed a remarkably strong-built bird, handsomely marked, and was altogether unknown to me. Mr. Bartram, who examined it very attentively, declared he had never before seen such a Hawk. On the afternoon of the next day I observed another, probably its mate or companion, and certainly one of the same species, sailing about over the same woods. Its motions were in wide circles, with unmoving wings, the exterior outline of which seemed a complete semicircle. I was extremely anxious to procure this also if possible; but it was attacked and driven away by a King-bird before I could effect my purpose, and I have never since been fortunate enough to meet with another. On dissecting the one which I had shot it proved to be a male.

In *size* this Hawk agrees, nearly, with the *Buzzardet*, (*Falco Albidus*) of Turton, described also by Pennant, (*Arct. Zool.* No.



3

2



109.) but either the descriptions of these authors are very inaccurate, the change of color which that bird undergoes very great, or the present is altogether a different species. Until, however, some other specimens of this Hawk come under my observation, I can only add to the figure here given, and which is a good likeness of the original, the following particulars of its size and plumage.

Length fourteen inches, extent thirty-three inches; bill black, blue near the base, slightly toothed; cere and corners of the mouth yellow; irides bright amber; frontlet and lores white; from the mouth backwards runs a streak of blackish brown; upper parts dark brown, the plumage tipped and the head streaked with whitish; almost all the feathers above are spotted or barred with white; but this is not seen unless they be separated by the hand; head large, broad and flat; cere very broad, the nostril also large; tail short, the exterior and interior feathers somewhat the shortest, the others rather longer, of a full black, and crossed with two bars of white, tip also slightly with whitish; tail coverts spotted with white; wings dusky brown, indistinctly barred with black; greater part of the inner vanes snowy; lesser coverts and upper part of the back tipped and streaked with bright ferruginous; the bars of black are very distinct on the lower side of the wing; lining of the wing brownish white, beautifully marked with small arrow heads of brown; chin white, surrounded by streaks of black; breast and sides elegantly spotted with large arrow-heads of brown centered with pale brown; belly and vent, like the breast, white, but more thinly marked with pointed spots of brown; femorals brownish white, thickly marked with small touches of brown and white; vent white; legs very stout; feet coarsely scaled, both of a dirty orange yellow; claws semicircular, strong and very sharp, hind one considerably the largest.

While examining the plumage of this bird, a short time after it was shot, one of those winged ticks with which many of our birds are infested, appeared on the surface of the feathers, moving

about, as they usually do, backwards or sideways like a crab among the plumage with great facility. The Fish Hawk, in particular, is greatly pestered with these vermin, which occasionally leave him as suits their convenience. A gentleman who made the experiment assured me, that on plunging a live Fish Hawk under water several of these winged ticks remained hovering over the spot, and the instant the Hawk rose above the surface, darted again among his plumage. The experiment was several times made with the like result. As soon, however, as these parasites perceive the dead body of their patron beginning to become cold, they abandon it; and if the person who holds it have his head uncovered, dive instantly among his hair, as I have myself frequently experienced; and tho driven from thence, repeatedly return, till they are caught and destroyed. There are various kinds of these ticks: the one found on the present Hawk is figured beside him. The head and thorax were light brown; the legs, six in number, of a bright green, their joints moving almost horizontally, and thus enabling the creature to pass with the greatest ease between the laminæ of feathers; the wings were single, of a dark amber color, and twice as long as the body, which widened towards the extremity, where it was slightly indented; feet two clawed.

This insect lived for several days between the crystal and dial-plate of a watch carried in the pocket; but being placed for a few minutes in the sun, fell into convulsions and died.

CHUCK-WILL'S-WIDOW.

CAPRIMULGUS CAROLINENSIS.

[Plate LIV.—Fig. 2.]

PEALE'S *Museum*, No. 7723.

THIS solitary bird is rarely found to the north of James river in Virginia on the sea-board, or of Nashville in the state of Tennessee in the interior; and no instance has come to my knowledge in which it has been seen either in New Jersey, Pennsylvania or Maryland. On my journey south I first met with it between Richmond and Petersburg in Virginia, and also on the banks of the Cumberland in Tennessee.

Mr. Pennant has described this bird under the appellation of the *Short-winged Goatsucker*, (Arct. Zool. No. 336.) from a specimen which he received from Dr. Garden of Charleston, South Carolina; but in speaking of its manners he confounds it with the Whip-poor-will, tho the latter is little more than half the cubic bulk of the former, and its notes altogether different. "In South Carolina," says this writer, speaking of the present species, "it is called, from one of its notes, *Chuck, chuck-will's-widow*; and in the northern provinces *Whip-poor-will*, from the resemblance which another of its notes bears to those words."* He then proceeds to detail the manners of the common Whip-poor-will, by extracts from Dr. Garden and Mr. Kalm, which clearly prove that all of them were personally unacquainted with that bird; and had never seen or examined any other than two of our species, the Short-winged or Chuck-will's-widow, and the Long-winged, or Night

* Arct. Zool. p. 434.

Hawk, to both of which they indiscriminately attribute the notes and habits of the Whip-poor-will.

The Chuck-will's-widow, so called from its notes which seem exactly to articulate those words, arrives on the sea coast of Georgia about the middle of March, and in Virginia early in April. It commences its singular call generally in the evening, soon after sunset, and continues it with short occasional interruptions for several hours. Towards morning these repetitions are renewed, and continue until dawn has fairly appeared. During the day it is altogether silent. This note, or call, instantly attracts the attention of a stranger, and is strikingly different from that of the Whip-poor-will. In sound and articulation it seems plainly to express the words which have been applied to it (*Chuck-will's-widow*), pronouncing each syllable leisurely and distinctly, putting the principal emphasis on the last word. In a still evening it may be heard at the distance of nearly a mile, the tones of its voice being stronger and more full than those of the Whip-poor-will, who utters his with much greater rapidity. In the Chickasaw country, and throughout the whole Mississippi territory, I found the present species very numerous in the months of April and May, keeping up a continued noise during the whole evening, and in moonlight throughout the whole of the night.

The flight of this bird is low, skimming about at a few feet above the surface of the ground, frequently settling on old logs, or on the fences, and from thence sweeping around in pursuit of various winged insects that fly in the night. Like the Whip-poor-will it prefers the declivities of glens and other deeply shaded places, making the surrounding mountains ring with echoes the whole evening. I several times called the attention of the Chickasaws to the notes of this bird, on which occasions they always assumed a grave and thoughtful aspect; but it appeared to me that they made no distinction between the two species; so that what-

ever superstitious notions they may entertain of the one are probably applied to both.

This singular genus of birds, formed to subsist on the superabundance of nocturnal insects, are exactly and surprisingly fitted for their peculiar mode of life. Their flight is low, to accommodate itself to their prey; silent, that they may be the better concealed, and sweep upon it unawares; their sight most acute in the dusk, when such insects are abroad; their evolutions something like those of the bat, quick and sudden; their mouths capable of prodigious expansion, to seize with more certainty, and furnished with long branching hairs, or bristles, serving as palisadoes to secure what comes between them. Reposing so much during the heats of day they are much infested with vermin, particularly about the head, and are provided with a comb on the inner edge of the middle claw, with which they are often employed in ridding themselves of these pests, at least when in a state of captivity. Having no weapons of defence except their wings, their chief security is in the solitude of night, and in their color and close retreats by day; the former so much resembling that of dead leaves of various hues as not to be readily distinguished from them even when close at hand.

The Chuck-will's-widow lays its eggs, two in number, on the ground, generally, and I believe always, in the woods; it makes no nest; the eggs are of a dull olive color, sprinkled with darker specks, are about as large as those of a pigeon, and exactly oval. Early in September they retire from the United States.

This species is twelve inches long, and twenty-six in extent; bill yellowish, tip with black; the sides of the mouth are armed with numerous long bristles, strong, tapering, and furnished with finer hairs branching from each; cheeks and chin rust color, specked with black; over the eye extends a line of small whitish spots; head and back very deep brown, powdered with cream, rust and bright ferruginous, and marked with long ragged streaks of black;

scapulars broadly spotted with deep black, bordered with cream, and interspersed with whitish; the plumage of that part of the neck which falls over the back is long, something like that of a cock, and streaked with yellowish brown; wing quills barred with black and bright rust; tail rounded, extending about an inch beyond the tips of the wings; it consists of ten feathers, the four middle ones are powdered with various tints of ferruginous, and elegantly marked with fine zig-zag lines and large herring-bone figures of black; exterior edges of the three outer feathers barred like the wings; their interior vanes for two-thirds of their length are pure snowy white, marbled with black and ferruginous at the base; this white spreads over the greater part of the three outer feathers near their tips; across the throat is a slight band or mark of whitish; breast black, powdered with rust; belly and vent lighter; legs feathered before nearly to the feet, which are of a dirty purplish flesh color; inner side of the middle claw deeply pectinated.

The female differs chiefly in wanting the pure white on the three exterior tail feathers, these being more of a brownish cast.

CAPE-MAY WARBLER.

SYLVIA MARITIMA.

[Plate LIV.—Fig. 3.]

THIS new and beautiful little species was discovered in a maple swamp, in Cape May county, not far from the coast, by Mr. George Ord of this city, who accompanied me on a shooting excursion to that quarter in the month of May last. Through the zeal and activity of this gentleman I succeeded in procuring many rare and elegant birds among the sea islands and extensive salt marshes that border that part of the Atlantic; and much interesting information relative to their nests, eggs, and particular habits. I have also at various times been favored with specimens of other birds from the same friend, for all which I return my grateful acknowledgments.

The same swamp that furnished us with this elegant little stranger, and indeed several miles around it, were ransacked by us both for another specimen of the same; but without success. Fortunately it proved to be a male, and being in excellent plumage, enabled me to preserve a faithful portrait of the original.

Whether this be a summer resident in the lower parts of New Jersey, or merely a transient passenger to a more northern climate, I cannot with certainty determine. The spring had been remarkably cold, with long and violent north-east storms, and many winter birds, as well as passengers from the south, still lingered in the woods as late as the twentieth of May, gleaning, in small companies, among the opening buds and infant leaves, and skipping nimbly from twig to twig, which was the case with the bird now before us when it was first observed. Of its notes, or particular history, I am equally uninformed.

The length of this species is five inches and a half, extent eight and a half; bill and legs black; whole upper part of the head deep black; line from the nostril over the eye, chin and sides of the neck rich yellow; ear feathers orange, which also tints the back part of the yellow line over the eye; at the anterior and posterior angle of the eye is a small touch of black; hind head and whole back, rump and tail coverts yellow olive, thickly streaked with black; the upper exterior edges of several of the greater wing coverts are pure white, forming a broad bar on the wing, the next superior row being also broadly tipped with white; rest of the wing dusky, finely edged with dark olive yellow; throat and whole breast rich yellow, spreading also along the sides under the wings, handsomely marked with spots of black running in chains; belly and vent yellowish white; tail forked, dusky black, edged with yellow olive, the three exterior feathers on each side marked on their inner vanes with a spot of white. The yellow on the throat and sides of the neck reaches nearly round it, and is very bright.

FEMALE BLACK-POLL WARBLER.

SYLVIA STRIATA.

[Plate LIV.—Fig. 4.]

Amer. Orn. vol. IV, p. 40.

THIS bird was shot in the same excursion with the preceding, and is introduced here for the purpose of preventing future collectors, into whose hands specimens of it may chance to fall, from considering it as another and a distinct species. Its history, as far as was then known, has been detailed in a preceding part of this work referred to above. Of its nest and eggs I am still ignorant. It doubtless breeds both here and in New Jersey, having myself found it in both places during the summer. From its habit of keeping on the highest branches of trees it probably builds in such situations, and its nest may long remain unknown to us.

Pennant, who describes this species, says that it inhabits during summer Newfoundland and New York, and is called in the last *Sailor*. This name, for which however no reason is given, must be very local, as the bird itself is one of those silent, shy and solitary individuals that seek the deep retreats of the forest, and are known to few or none but the naturalist.

Length of the female Black-cap five inches and a quarter, extent eight and a quarter; bill brownish black; crown yellow olive streaked with black; back the same, mixed with some pale slate; wings dusky brown, edged with olive; first and second wing coverts tipped with white; tertials edged with yellowish white; tail coverts pale grey; tail dusky, forked, the two exterior feathers marked on their inner vanes with a spot of white; round the eye

is a whitish ring; cheeks and sides of the breast tinged with yellow, and slightly spotted with black; chin white, as are also the belly and vent; legs and feet dirty orange.

The young bird of the first season, and the female, as is usually the case, are very much alike in plumage. On their arrival early in April, the black feathers on the crown are frequently seen coming out, intermixed with the former ash-colored ones.

This species has all the agility and many of the habits of the Flycatcher.





SMITHSONIAN INSTITUTION LIBRARIES



3 9088 00443 9097